# EVO-9700P
## RM-E9700/KI-9700P

# SERVICE MANUAL

*AEP Model*
*UK Model*

## SPECIFICATIONS

### Video section

| | |
|---|---|
| Video signal | CCIR standard, PAL colour |
| Video recording system | Rotary two-head helical scanning |
| Luminance signal recording system | FM |
| Horizontal resolution | 400 lines (typical, Hi8 mode) |
| Signal-to-noise ratio | 45 dB (Hi8 mode, colour)<br>45 dB (SP mode, colour) |

### Audio section

| | |
|---|---|
| Audio recording system | Rotary head, PCM 2-channel and FM 1-channel system |
| Dynamic range | Standard track: more than 60 dB(SP)<br>PCM track: more than 85 dB |
| Frequency response | Standard track: 30 – 15,000 Hz (SP)<br>PCM track: 20 – 15,000 Hz |

### Inputs/outputs

| | |
|---|---|
| RECORDER IN | S VIDEO input: 4-pin mini DIN connector (1)<br>Luminance signal 1 Vp-p, 75 ohms, unbalanced, sync negative<br>Chrominance signal 300 mVp-p, 75 ohms, unbalanced<br>VIDEO input: BNC connector (1)<br>1 Vp-p, 75 ohms, unbalanced, sync negative<br>AUDIO inputs: Phono jack (2)<br>–7.5 dBs, more than 47 kilohms, stereo |
| RECORDER OUT/PLAYER OUT | S VIDEO output: 4-pin mini DIN connector (1 each)<br>Luminance signal 1 Vp-p, 75 ohms, unbalanced, sync negative<br>Chrominance signal 300 mVp-p, 75 ohms, unbalanced<br>VIDEO output: BNC connector (1 each)<br>1 Vp-p, 75 ohms, unbalanced, sync negative<br>AUDIO outputs: Phono jack (2 each)<br>–7.5 dBs, more than 47 kilohms, stereo |
| MONITOR OUT | VIDEO output:<br>BNC connector (1), Phono jack (1)<br>1 Vp-p, 75 ohms, unbalanced, sync negative<br>AUDIO outputs: Phono jack (2)<br>–7.5 dBs, more than 47 kilohms, monaural<br>RFU DC OUT: Special minijack (1), 5 V DC |

— Continued on next page —

**Hi8 VIDEO CASSETTE RECORDER**

**SONY®**

MICROFILM

| | |
|---|---|
| HEADPHONES output | Stereo minijack (1)<br>–29 dBs, 50 ohms load |
| MIC input | Phone jack (1), monaural<br>–60 dBs, 4.3 kilohms |

### General

| | |
|---|---|
| Power requirements | 220 – 240 V AC, 50/60 Hz |
| Power comsumption | 48 W |
| Operating temperature | 5°C to 40°C (41°F to 104°F) |
| Storage temperature | –20°C to +60°C (4°F to 140°F) |
| Dimensions | 430 × 130 × 470 mm (w/h/d)<br>(17 × $5^1/_8$ × $18^5/_8$ inches)<br>incl. projecting parts and controls |
| Weight | Approx. 12 kg (26 lb 7 oz) |

### Editing controller

| | |
|---|---|
| Power requirements | 5 V DC, supplied from the EVO-9700P |
| Power consumption | 0.75W |
| Dimensions | Approx. 90 × 43 × 182 mm (w/h/d)<br>($3^5/_8$ × $1^3/_4$ × $7^1/_4$ inches)<br>incl. projecting parts and controls |
| Cable length | Approx. 35 cm ($13^7/_8$ inches) when curled |
| Weight | Approx. 300 g (11 oz) |

### Title keyboard

| | |
|---|---|
| Keyboard | 74 keys, N-key rollover |
| Power requirements | 5 V DC, supplied from the EVO-9700P |
| Power consumption | 0.13W |
| Dimensions | Approx. 409 × 36 × 183 mm (w/h/d)<br>($16^1/_8$ × $1^7/_{16}$ × $7^1/_4$ inches)<br>incl. projecting parts and controls<br>not incl. connecting cable |
| Cable length | Approx. 130 cm ($51^1/_4$ inches) |
| Weight | Approx. 1.3 kg (2 lb 14 oz)<br>incl. connecting cable |

### Accessories supplied

Editing controller RM-E9700 (1)
Titele keyboard KI-9700P (1)
Audio/video cable VMC-710M (2 phono to 2 phono) (1)
Plug adaptor (BNC to phono) (1)
Pause control cord (mini to mini) (1)
Pause control cord with converter (mini to 5-pin) (1)
Plug adaptor (mini to special mini)
Cleaning cassette V8-25CLH (1)
Power cord (1)

Design and specifications are subject to change without notice.

**Note**
This appliance conforms with EEC Directive 87/308/EEC regarding interference suppression.

## SAFETY CHECK-OUT

After correcting the original service problem, perform the following safety checks before releasing the set to the customer:

1. Check the area of your repair for unsoldered or poorly-soldered connections. Check the entire board surface for solder splashes and bridges.
2. Check the interboard wiring to ensure that no wires are "pinched" or contact high-wattage resistors.
3. Look for unauthorized replacement parts, particularly transistors, that were installed during a previous repair. Point them out to the customer and recommend their replacement.
4. Look for parts which, though functioning, show obvious signs of deterioration. Point them out to the customer and recommend their replacement.
5. Check the B+ voltage to see it is at the values specified.

**SAFETY-RELATED COMPONENT WARNING!!**

**COMPONENTS IDENTIFIED BY MARK ⚠ OR DOTTED LINE WITH MARK ⚠ ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.**

# EVO-9700P

## RM-E9700/KI-9700P

SONY
# SERVICE MANUAL

AEP Model
UK Model

## CORRECTION-1

**SECTION 5 EXPLODED VIEWS**
**5-1. FRONT PANEL AND CABINET ASSEMBLIES**

**Use this correction with the service manual published previously.**

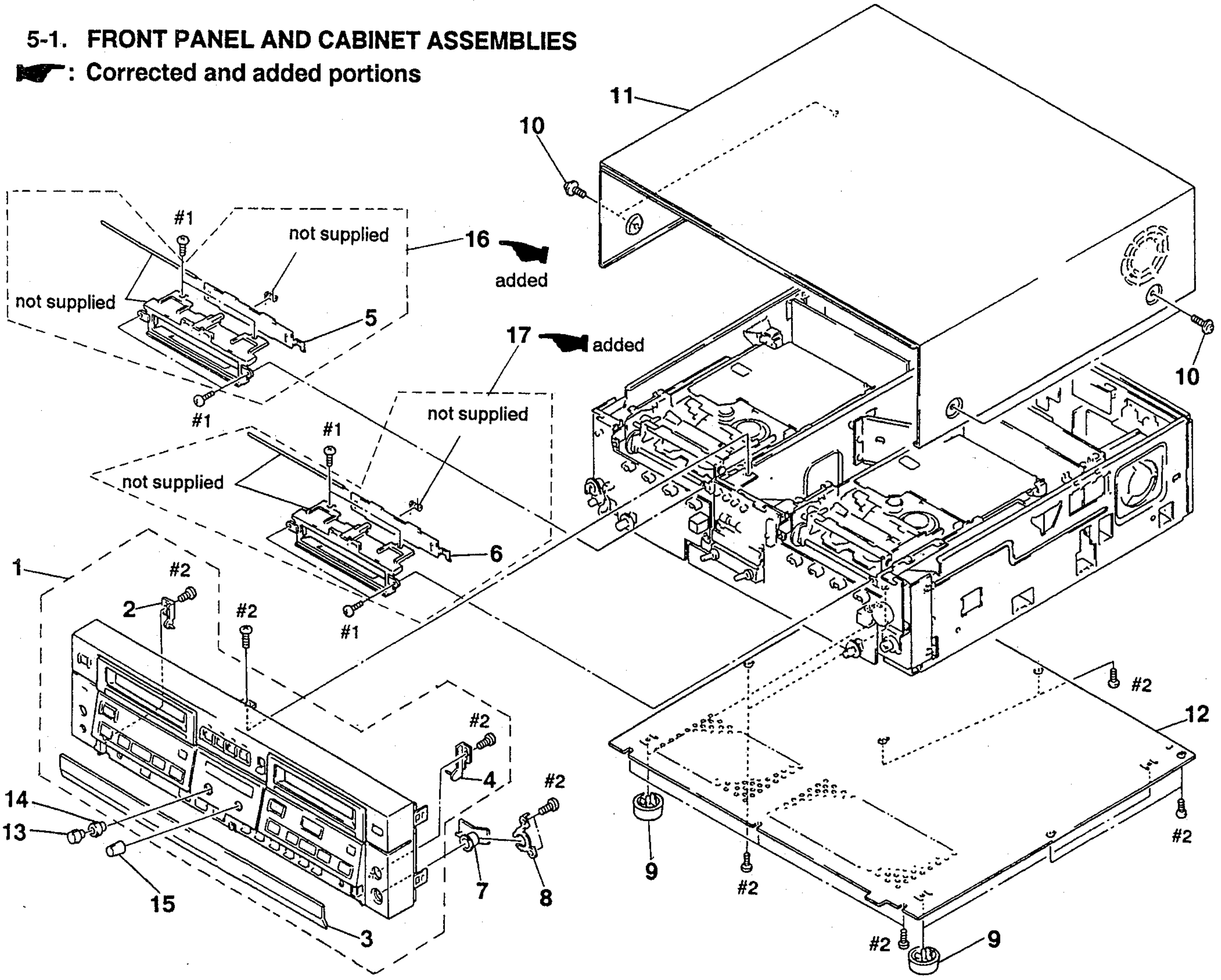
# SECTION 5
# EXPLODED VIEWS

**NOTE:**
- -XX, -X mean standardized parts, so they may have some difference from the original one.
- Items marked " ∗ " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- The mechanical parts with no reference number in the exploded views are not supplied.
- Hardware (# mark) list is given in the last of this parts list.

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

## 5-1. FRONT PANEL AND CABINET ASSEMBLIES

☛: Corrected and added portions



| Ref. No. | Part No. | Description | Remark |
|---|---|---|---|
| 1 | X-3940-885-1 | PANEL ASSY, FRONT | |
| 2 | X-3747-005-1 | SUPPORT (L) ASSY, DOOR | |
| 3 | X-3940-884-1 | DOOR ASSY | |
| 4 | X-3747-006-1 | SUPPORT (R) ASSY, DOOR | |
| 5 | 3-721-101-21 | DOOR | corrected |
| 6 | 3-721-101-11 | DOOR | corrected |
| 7 | ∗ 1-635-324-11 | CC-34 BOARD | |
| 8 | ∗ 3-724-111-01 | HOLDER, CONNECTOR | |
| 9 | X-3701-069-0 | FOOT ASSY, M.F | |
| 10 | 4-886-821-11 | SCREW, M3 CASE | |
| 11 | 3-747-057-01 | CASE, UPPER | |
| 12 | 3-747-058-01 | PLATE, BOTTOM | |
| 13 | 3-747-004-03 | KNOB (R), LEVEL | |
| 14 | 3-747-003-02 | KNOB (L), LEVEL | |
| 15 | 3-747-013-02 | KNOB, AFM LEVEL | |
| 16 | X-3689-096-1 | WINDOW ASSY (P) | added |
| 17 | X-3689-097-1 | WINDOW ASSY (R) | added |

English
92D0911-1

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Personal Video Group

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# TABLE OF CONTENTS

Section Title Page

## 1. GENERAL

Technical Information 6
Hi8 Video System 7
Location and Function of Controls 8
Basic System Connection 13
Connection of External Equipment 13
Creating Titles 14

## 2. DISASSEMBLY

2-1. Removal of Cabinet 16
2-2. Removal of Front Panel 16
2-3. Removal of FB-170, FB-171, HE-3 Boards 16
2-4. Opening of AN-2P, MM-25, PM-11P Boards 16
2-5. Removal of Mechanism Block 17
2-6. Opening of MA-41, MC-81 Boards 17
2-7. Removal of IG-14 Board 17
2-8. Removal of Power Supply Block 18
2-9. Removal of Cassette Compartment Window Assembly 18
2-10. Opening of MB-19P, MD-23P Boards 18
2-11. Plate, Shield, Core 18
2-12. Opening of HK-5 Board 19
2-13. Opening of SE-10P Board 19
2-14. Removal of Reel Motor 19
2-15. Removal of RS-31 Board 19
2-16. Removal of Cassette Compartment 20
2-17. Removal of Multi-cover, Roller SHAFT 20

## 3. DIAGRAMS

3-1. Circuit Boards Location 21
3-2. Overall Block Diagram 23
3-3. REC/PB Head Amp Block Diagram 27
3-4. Y Process Block Diagram 29
3-5. Chroma Process Block Diagram 31
3-6. Video In/Out Block Diagram 35
3-7. Digital Picture Block Diagram 39
3-8. Picture In Picture Block Diagram 42
3-9. Servo Block Diagram 45
3-10. System Control Block Diagram 48
3-11. System Control — Video (Y Process, Chroma Process, REC/PB Head Amp) Block Interface 51
3-12. System Control — Servo (Capstan Motor) Block Interface 51
3-13. System Control — Servo (Drum Motor) Block Interface 53
3-14. System Control — Servo (Reel Motor) Block Interface 53
3-15. System Control — Servo (ATF Servo) Block Interface 55
3-16. System Control — Servo (Still) Block Interface 55
3-17. System Control — Servo (Head Selection) Block Interface 55
3-18. System Control — Servo (Others) Block Interface 57
3-19. System Control — MD Block Interface 57
3-20. Mode Control Microprocesser — Peripheral Circuit Interface (IC001 (CXP80116) on SE-10P Board) 59
3-21. System Control — PCM Audio Block Interface 61
3-22. Servo — Video (Y Process, Chroma Process and REC/PB Head Amp) Block Interface 61
3-23. PCM Audio — Video (Y Process, Chroma Process and REC/PB Head Amp) Block Interface 61
3-24. PCM Audio — Servo Block Interface 62
3-25. PCM Audio — Audio In/Out Block Interface 62
3-26. Main Control — Video In/Out Block Interface 63
3-27. Main Control — Digital Picture Block Interface 63
3-28. Main Control — Picture in Picture Block Interface 64
3-29. Main Control — Servo Block Interface 64
3-30. Main Control — Audio In/Out Block Interface 64
3-31. Main Control Block Diagram (1) 65
3-32. Main Control Block Diagram (2) 68
3-33. AFM/PCM Audio Block Diagram 71
3-34. Audio In/Out Block Diagram 75
3-35. Power Block Diagram 79

## 4. PRINTED WIRING BOARDS AND SCHEMATIC DIAGRAMS

4-1. Frame Schematic Diagram 82
4-2. Printed Wiring Boards and Schematic Diagrams 89
- FR-43, RP-73 (LP), RP-103 (SP) Boards 89
- HK-5 (C Signal Process) Board 98
- HK-5 (Y Signal Process) Board 107
- HK-5 (Y/C/AFM Mix) Board 116
- SE-10P (Servo, System Control) Board 125
- SE-10P, IG-4 (Board Link) Boards 133
- MD-23P, TS-74 (R), TS-74 (L) Boards 140
- RS-31, LD-1, MS-4, LS-9 Boards 146
- MB-19P Board 152
- PD-19P, PA-27 Boards 158
- YX-2P Board 165
- YC-106 Board 172
- AN-2P, JB-28, JB-27, SI-12 Boards 179
- MC-81, CO-5, CO-6, TC-16 Boards 187
- PM-11P (Digital Picture) 195
- MM-25 Board 202
- MA-41, RL-23, MJ-26 Boards 209
- FB-170, SA-30, CC-34 Boards 217
- FB-171, HE-3 Boards 224
- Power Block, IG-14 Boards 229

4-3. Semiconductors 234

Section Title Page

## 5. EXPLODED VIEWS

5-1. Front Panel and Cabinet Assemblies ········· 236
5-2. PC Boards Assemblies ········· 237
5-3. PC Boards and Power Supply Assemblies ········· 238
5-4. Mechanical Deck Boards Assembly ········· 239
5-5. Cassette Compartment Assembly (1) ········· 240
5-6. Cassette Compartment Assembly (2) ········· 241
5-7. Threading Ring and Tape Path Assemblies ········· 242
5-8. Reel Chassis Assembly ········· 243
5-9. Head Drum and Threading Ring Assemblies ········· 244
5-10. Mechanism Control Chassis Assembly ········· 245

6. ELECTRICAL PARTS LIST ········· 246

HARDWARE LIST ········· 317

## 7. MECHANICAL ADJUSTMENT

7-1. Periodic Check and Maintenace ········· 318
  7-1-1. Maintenance After Repairs ········· 318
  7-1-2. Periodic Check ········· 319
  7-1-3. Servicing Tools ········· 320
  7-1-4. How to Use the Cleaning Tape ········· 322
  7-1-5. Others ········· 322
7-2. Replacement of Major Parts ········· 323
  7-2-1. Replacement of the Fly Wheel ········· 325
  7-2-2. Replacement of the Rotary Upper Drum ········· 326
  7-2-3. Replacement of the Drum Assembly ········· 328
  7-2-4. Replacement of the Threading Ring Assembly ········· 330
  7-2-5. Replacement of the Pinch Roller Arm Assembly ········· 332
  7-2-6. Replacement of the Capstan Motor ········· 334
  7-2-7. Replacement of the Threading Motor Assembly ········· 335
  7-2-8. Replacement of the Reel Motor ········· 336
  7-2-9. Replacement of the No. 3 and No. 4 Guides ········· 337
  7-2-10. Replacement of the Entrance Guide (P) Assembly (No.2 Guide Assembly) ········· 338
  7-2-11. Replacement of the Slant Guide Assembly ········· 339
  7-2-12. Replacement of the No. 5 Guide Block Complete Assembly ········· 340
  7-2-13. Replacement of the S Reel Table Assembly ········· 341
  7-2-14. Replacement of the T Reel Table Assembly ········· 342
  7-2-15. Replacement of the Pinch Press Arm Assembly ········· 343
  7-2-16. Replacement of the Tension Regulator Arm Assembly ········· 343
  7-2-17. Replacement of the Tension Regulator Band Assembly ········· 345
  7-2-18. Replacement of the L Slider Assembly ········· 346
  7-2-19. Replacement of the L-Switch Assembly ········· 348
  7-2-20. Replacement of the Plunger Solenoid ········· 350
  7-2-21. Replacement of the M-Switch Assembly ········· 351
  7-2-22. Replacement of the M Slider ········· 353
  7-2-23. Installation of the Block Plate Assembly ········· 355
  7-2-24. Parallelism Adjustment of the Cassette Holder Block ········· 356
7-3. Torque and Back Tension Adjustment ········· 357
  7-3-1. Check of the Main Brake Torque ········· 357
  7-3-2. Check of the Soft Brake Torque ········· 359
  7-3-3. Check of the Rew Brake Torque ········· 361
  7-3-4. Check by the FWD, RVS Take-up Torque Cassette ········· 361
  7-3-5. FWD Back Tension Adjustment ········· 362
7-4. Tape Path Adjustment ········· 364
  7-4-1. Connection of the Track Shift Tool ········· 364
  7-4-2. Preparation for Adjustment ········· 366
  7-4-3. Tape Path System Adjustment Table ········· 368
  7-4-4. Tape Entrance Side Adjustment ········· 370
  7-4-5. Tape Exit Side Adjustment ········· 373
  7-4-6. Check After Adjustment ········· 376

## 8. ELECTRICAL ADJUSTMENTS

8-1. Power Supply Adjustment ········· 381
  8-1-1. Equipment Required ········· 381
  8-1-2. UNSW 5V Adjustment ········· 381
  8-1-3. REG +5V Adjustment ········· 381
  8-1-4. REG +9V Adjustment ········· 381
8-2. Servo System Adjustment ········· 382
  8-2-1. Equipment Required ········· 382
  8-2-2. DS Clock Check ········· 382
  8-2-3. Capstan FG Duty Adjustment ········· 383
  8-2-4. Reel FG Adjustment ········· 383
  8-2-5. Drum Free Speed Adjustment ········· 383
  8-2-6. Capstan Free Speed Adjustment ········· 384
  8-2-7. Switching Position Adjustment ········· 385
  8-2-8. ATF BPF Balance Adjustment ········· 385
  8-2-9. STILL Adjustment ········· 386
  8-2-10. Recorder Slow Tracking Center Adjustment ········· 386
  8-2-11. Player Slow Tracking Center Adjustment ········· 386
  8-2-12. SP Slow Adjustment ········· 387
  8-2-13. LP Slow Adjustment ········· 387
  8-2-14. SP Slow $f_H$ Adjustment ········· 388
  8-2-15. LP Slow $f_H$ Adjustment ········· 388
  8-2-16. REF VD Adjustment ········· 389
  8-2-17. REF V A Adjustment ········· 389
  8-2-18. REF V B Adjustment ········· 389
  8-2-19. B WINDOW Adjustment ········· 390
  8-2-20. A WINDOW Adjustment ········· 390
  8-2-21. Picture Splitting Adjustment ········· 390
8-3. Video Signal System Adjustment ········· 391
  8-3-1. Equipment Required ········· 391
  8-3-2. SP PB Frequency Response Adjustment ········· 392
  8-3-3. LP PB Frequency Response Adjustment ········· 392
  8-3-4. Flying Erase Confirmation ········· 392
  8-3-5. SubCarrier Frequency Adjustment ········· 393
  8-3-6. PB C Comb Filter Adjustment ········· 393
  8-3-7. SYNC AGC Adjustment ········· 393
  8-3-8. AGC Output Level Adjustment ········· 394
  8-3-9. STD Mode PB Y Level Adjustment ········· 394
  8-3-10. PB De-emphasis Adjustment ········· 394
  8-3-11. Hi8 Mode PB Y Level Adjustment ········· 394
  8-3-12. E-E Y Output Level Adjustment ········· 395
  8-3-13. STD Mode Y FM Carrier Adjustment ········· 395
  8-3-14. STD Mode Y FM Deviation Adjustment ········· 395
  8-3-15. Hi8 Mode Y FM Carrier Adjustment ········· 395
  8-3-16. Hi8 Mode Y FM Deviation Adjustment ········· 396
  8-3-17. 375$f_H$ VCO Adjustment ········· 396
  8-3-18. Chroma Emphasis $f_0$ Adjustment ········· 396
  8-3-19. Carrier Balance Adjustment ········· 397

Section Title Page

8-3-20. REC Y RF Level Adjustment ········ 397
8-3-21. REC C RF Level Adjustment ········ 397
8-3-22. SP REC Current Adjustment ········ 398
8-3-23. DOC Level Adjustmnt ········ 398
8-3-24. Comb AGC Adjustment ········ 399
8-3-25. GCA Gain Adjustment ········ 399
8-3-26. $f_H$ VCO Adjustment ········ 400
8-3-27. Y/C Delay Adjustment ········ 400
8-4. Video Input/Output Circuit Adjustment ········ 401
8-4-1. Instruments to be Used for Video Input/output Circuit Adjustment ········ 401
8-4-2. Switch Setting ········ 401
8-4-3. FSC Adjustment ········ 401
8-4-4. Y Level Adjustment ········ 401
8-4-5. Chroma Level Adjustment ········ 402
8-4-6. Y/C MIX Level Adjustment ········ 402
8-4-7. Noise Cancel +6 dB Amplifier Adjustment ········ 402
8-4-8. Limiter Cancel Adjustment ········ 403
8-4-9. PB Y Level Adjustment ········ 403
8-4-10. PB Chroma Level Adjustment ········ 403
8-4-11. YX Filter Adjustment ········ 404
8-4-12. YX Filter Chroma Control Level Adjustment ········ 404
8-4-13. Y/C Mix Level Adjustment ········ 405
8-4-14. Title Letter Position Adjustment ········ 405
8-5. Digital Picture Circuit Adjustment ········ 406
8-5-1. Instruments to be Used for Digital Picture Circuit Adjustment ········ 406
8-5-2. Setting for Switch and Operation Mode ········ 406
8-5-3. AFC Adjustment ········ 406
8-5-4. APC Adjustment ········ 406
8-5-5. V-PLL Adjustment ········ 406
8-5-6. Chroma Encoder Adjustment ········ 406
8-5-7. Y Input Level Adjustment ········ 407
8-5-8. Y Output Level Adjustment ········ 407
8-5-9. Y Clamp Level Adjustment ········ 407
8-5-10. Burst Level Adjustment ········ 408
8-5-11. C Output Level Adjustment ········ 408
8-6. Picture in Picture Circuit Adjustment ········ 409
8-6-1. Instruments to be Used for Picture in Picture Circuit Adjustment ········ 409
8-6-2. Setting for Switches and Operation Modes ········ 409
8-6-3. Decoder Free-running Frequency Adjustment ········ 409
8-6-4. Encoder Free-running Frequency Adjustment ········ 409
8-6-5. Write Clock Adjustment ········ 409
8-6-6. Tint Adjustment ········ 410
8-6-7. Hue and Chroma Level Adjustments ········ 410
8-7. Audio Signal System Adjustment ········ 411
8-7-1. Equipment Required ········ 411
8-7-2. PCM Master Clock Adjustment ········ 411
8-7-3. PCM Playback VCO Free-Frequency Adjustment ········ 411
8-7-4. D/A Converter Level Adjustment ········ 412
8-7-5. NR Decode Level Adjustment ········ 412
8-7-6. A/D Converter Offset Adjustment ········ 412
8-7-7. PCM REC Level Adjustment ········ 413
8-8. Adjustment Related Parts Arrangement Diagrams ········ 414

Section Title Page

REMOTE CONTROLLER (RM-E9700) ········ 431

TITLE KEYBOARD (KI-9700P) ········ 441

This section is extracted from instruction manual.

# Technical Information

## What is a Time Code?

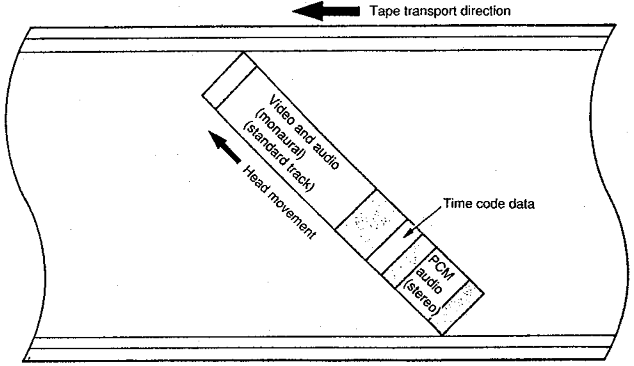
Each scene recorded on a tape can be numbered in units of frame (1/25 second) by the hour, minute, second and frame. This is a time code. The time code is automatically recorded during editing, or it can be recorded separately. Programme editing and insert editing are carried out by using the recorded time code.

**Important**

The time code used in this unit is the special 8 mm format time code for institutional products.

## 8 mm Format Video Cassette Tape

The video and audio information are recorded on an 8 mm format video cassette tape according to the following allocation. This unit allows recording of the time code as well as other information.



**Recording time, playback time**

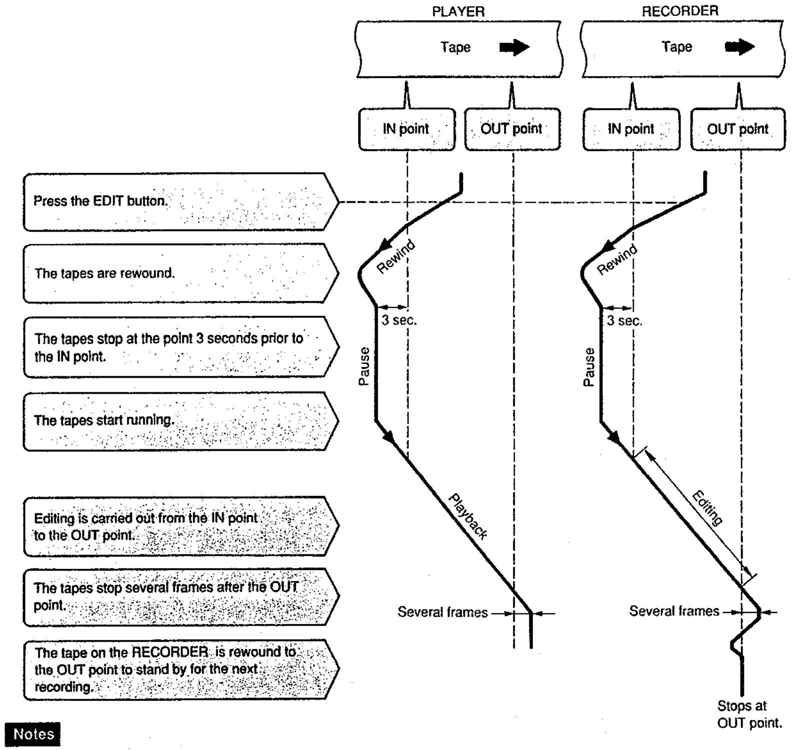
This VTR records in SP mode only, and plays back in both SP and LP modes.
When playing back a tape, the mode in which the tape was recorded is selected automatically.

| | Cassette used | SP | LP |
|---|---|---|---|
| Hi8 tape<br>Hi8 | P5-30HMPX, E5-30HMEX | 30 min. | 1 hr. |
| | P5-60HMPX, E5-60HMEX | 60 min. | 2 hr. |
| | P5-90HMPX, E5-90HMEX | 1 hr. 30 min. | 3 hr. |
| Standard 8 mm tape<br>8 | P5-15MP | 15 min. | 30 min. |
| | P5-30MP/30HMP/30HGA | 30 min. | 1 hr. |
| | P5-60MP/60HMP/60HGA | 60 min. | 2 hr. |
| | P5-90MP/90HMP/90HGA | 1 hr. 30 min. | 3 hr. |

## What is a Pre-roll?

"Pre-roll" is a method designed to run the original tape and the tape to be edited for several seconds (3 seconds for this unit) before the preset editing starting point. During this period of pre-roll, two video decks are fully controlled for synchronized operations, thus making possible highly accurate editing.

The editing accuracy is 0 frames with the time code, and ±3 frames without the time code.



- Press the EDIT button.
- The tapes are rewound.
- The tapes stop at the point 3 seconds prior to the IN point.
- The tapes start running.
- Editing is carried out from the IN point to the OUT point.
- The tapes stop several frames after the OUT point.
- The tape on the RECORDER is rewound to the OUT point to stand by for the next recording.

**Notes**

- During pre-roll, the tapes start running and stop automatically.
- The period required of pre-roll is 3 seconds for this unit.
  Therefore, if there is any recording within 3 seconds from the beginning of the original tape, this part will not be edited correctly. In addition, a blank portion for 3 seconds will be made at the beginning of the edited tape.

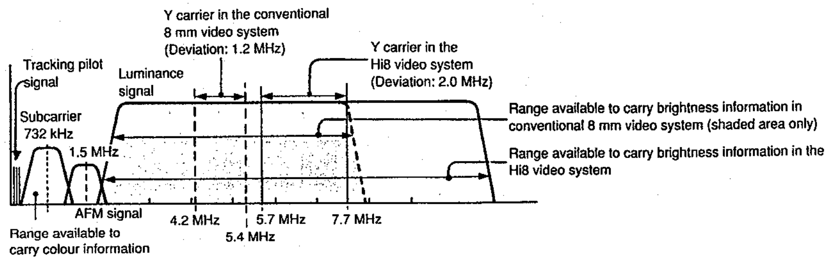
# Hi8 Video System

In the Hi8 video system that is a new 8mm video system, Y (luminance) carrier frequency which carries information on brightness is shifted up 1.5 MHz, and the Y carrier deviation is changed to 2.0 MHz while the conventional deviation is 1.2 MHz. As a result, a wider bandwidth can be used for recording and playback (see below), and a higher quality picture with horizontal resolution of 400 lines or more can be obtained.

To take full advantage of the Hi8 video system, a Hi8 tape is prepared using a metal tape which has characteristics superior to a conventional tape.

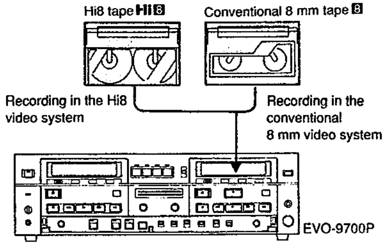
## Recording in the Hi8 Video System and Conventional 8mm Video System

The chroma subcarrier frequency which carries information on colours is kept unchanged at 732 kHz.
The frequency of the Y carrier is shifted up 1.5 MHz, and the deviation is widened to 2.0 MHz.



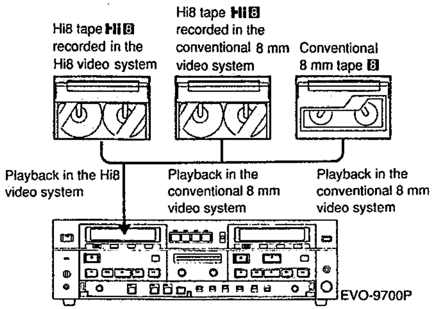
## Cassette Tape and Automatic Switching of Recording/Playback Mode

When using a Hi8 cassette tape Hi8 for recording, this unit senses the detection holes on the cassette shell (see below), and automatically performs the recording in the SP mode of Hi8 video system.
When using a conventional 8 mm tape 8, the recording is performed in the conventional 8 mm video system.



Hi8 tape Hi8
Conventional 8 mm tape 8
Recording in the Hi8 video system
Recording in the conventional 8 mm video system
EVO-9700P

In playback, the unit can detect the system mode used in recording by verifying the recorded signal, and plays back the tape in the appropriate mode.

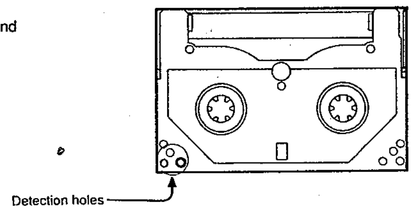


Hi8 tape Hi8 recorded in the Hi8 video system
Hi8 tape Hi8 recorded in the conventional 8 mm video system
Conventional 8 mm tape 8
Playback in the Hi8 video system
Playback in the conventional 8 mm video system
Playback in the conventional 8 mm video system
EVO-9700P

- The Hi8 indicator on the front panel lights during recording or when a tape recorded in the Hi8 video system is played back.

## Hi8 Cassette Tape Hi8

This new Hi8 tape with high durability was specially developed for Hi8 video system recording/playback and features characteristics best suiting the Hi8 video system. Hi8 cassettes have a detection hole on the bottom of the cassette shell to automatically set Hi8 VTRs in the Hi8 video system recording.

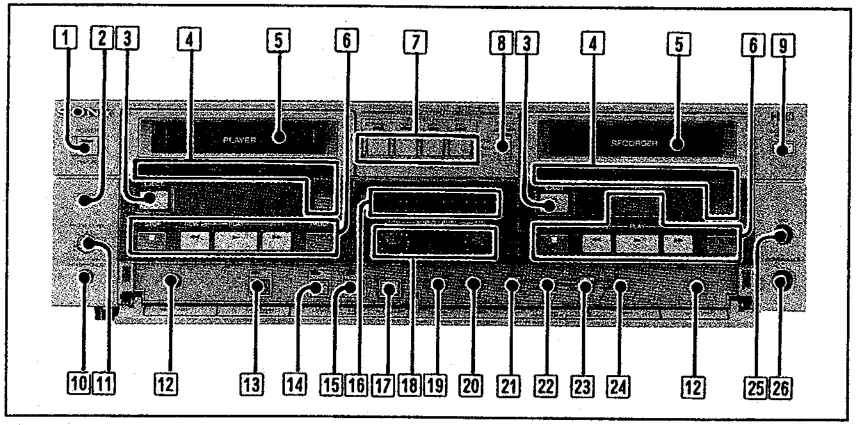


Detection holes

# Location and Function of Controls

For details on the use of each control, refer to the pages indicated in the circle ●.

## Front of the VTR



1 **Power switch and indicator**

2 **STANDBY indicator**
When the AC power cord is plugged in, this indicator lights to show that the unit is in standby condition. When the POWER switch is turned on, the indicator goes off.

3 **≜ EJECT button**
Press to eject the cassette.

4 **Indicators**
▣: Lights when a cassette is in the cassette compartment.
**Hi8:** Lights up when the power is on, and goes out when a tape recorded in the standard system is inserted or when the system used in recording cannot be determined.
**PCM:** Lights when PCM sound is recorded on the tape or during PCM audio recording.
**SP:** Lights when the tape speed is in SP mode.
**J/S:** Lights when the JOG dial or SHUTTLE ring on the editing controller is in use.

5 **Cassette compartments**
The left one is for the PLAYER deck, and the right one for the RECORDER deck.

6 **Tape transport buttons and indicators**
The indicator lights when the button is in operation.
■ STOP button
◀◀ REW (rewind) button
▶ PLAY button
▶▶ FF (fast-forward) button
❚❚ PAUSE button
● REC button (on RECORDER only)

7 **AUDIO OUTPUT SELECT-PLAYER buttons**
Select the standard or PCM track of the PLAYER so that the sound of the selected track is output to the RECORDER and the PLAYER OUT-AUDIO jacks on the rear.
For details, see page 12.

8 **AUDIO OUTPUT SELECT-RECORDER/MONITOR selector**
Select the sound to be output to the MONITOR OUT-AUDIO jacks and the RECORDER OUT-AUDIO jacks on the rear.
For details, see page 12.

9 **COUNTER RESET button**
Press to reset the tape counter displayed on the main picture to 0000.

10 **HEADPHONES jack (stereo minijack)**

11 **PHONE LEVEL control**

12 **SLOW ADJ (slow-motion picture adjustment) knob**
Normally keep this knob at the center detent position. If streaks or snow appear during slow-motion playback, adjust this knob.

13 **8 mm TIME CODE WRITE button and indicator (77)**
Press to record the time code on the tape in the PLAYER. The indicator blinks during pre-roll prior to time code recording. During time code recording, the indicator on the button lights.

14 **EDITING DATA LOAD button and indicator (51)**
Press to load the editing data saved on the tape, such as the time codes of the IN and OUT points for programme editing, to the memory of this unit. The indicator on the button lights during loading.

15 **EDITING DATA SAVE button and indicator ㊿**
Press to save the editing data stored in the memory of this unit onto the tape in the PLAYER. The indicator on the button lights.

16 **AUDIO LEVEL meters ㉘**
Audio recording level of the sound selected with the AUDIO OUTPUT SELECT-RECORDER/MONITOR selector is shown during recording, and the audio playback level during playback.

17 **EDITING DATA ALL CLEAR button ㊺**
Press to clear all editing data stored in the memory of this unit.

18 **AUDIO LEVEL controls ㉘**
Adjust the audio recording level.
**PCM:** Adjust the level to be recorded on the PCM track.
**STD (standard):** Adjust the level to be recorded on the standard track.

19 **BEEP switch**
Set to ON so that the beep sounds for guiding the editing process such as the start of editing, the entry of the IN and OUT points of editing, etc.

20 **DATA SCREEN switch**
The time code, editing data, tape counter, etc. can be displayed on the monitor screen together with a picture. To display such data, set this switch to ON. To turn off the display, set it to OFF.

21 **CNR (Chroma Noise Reducer) switch**
Selects the digital chroma noise reduction level for the PLAYER's picture.
**H:** High level
**L:** Low level
**OFF:** To turn off the chroma noise reducer

22 **RECORDER INPUT SELECT - AUDIO selector**
Select the recording audio source for the RECORDER.
**PLAYER:** To record the audio signal of the PLAYER
**LINE:** To record the audio signal input to the RECORDER IN-AUDIO jacks on the rear

23 **RECORDER INPUT SELECT - VIDEO selector**
Select the recording video source for the RECORDER.
**PLAYER:** To record the video signal of the PLAYER
**PROCESSOR:** To process the PLAYER's signal with an external signal processor and record it on the RECORDER
**LINE:** To record the video signal input to the RECORDER IN VIDEO jacks on the rear

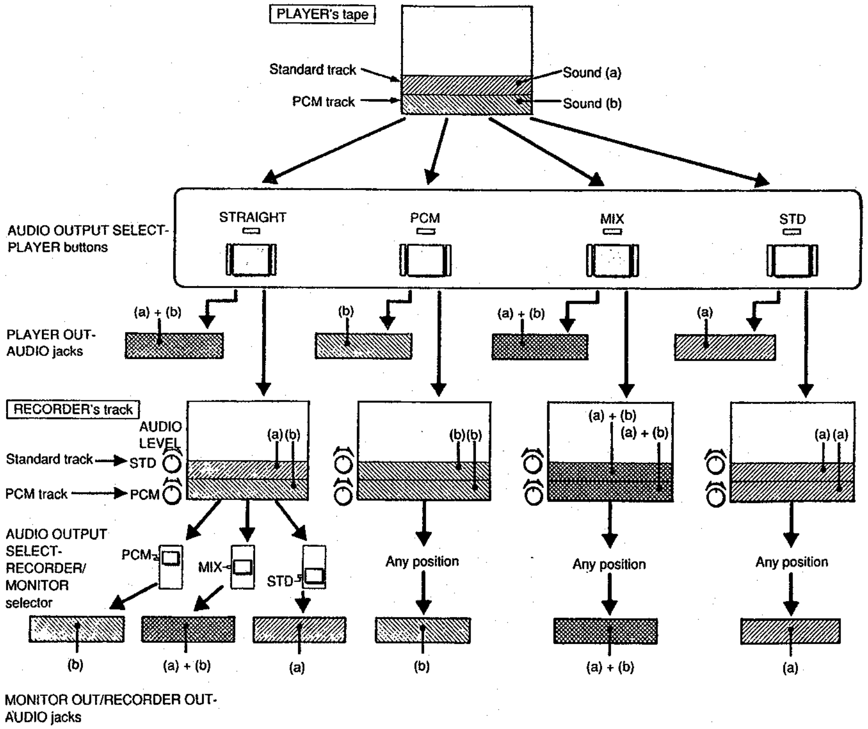
24 **RECORDER INPUT SELECT - LINE selector**
Select the S video signal or the composite video signal.
**S VIDEO:** To record the S video signal input to the RECORDER IN S VIDEO connector
**VIDEO:** To record the composite video signal input to the BNC-type RECORDER IN VIDEO connector

25 **MIC jack (phone jack, monaural)**
Connect a microphone.

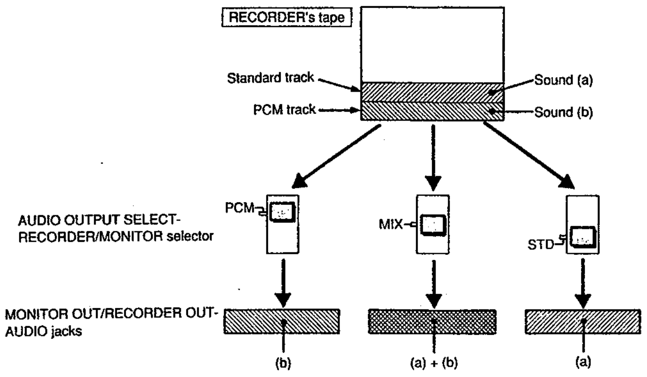
26 **CONTROLLER connector**
Connect the supplied editing controller here.

## Selection of the sound

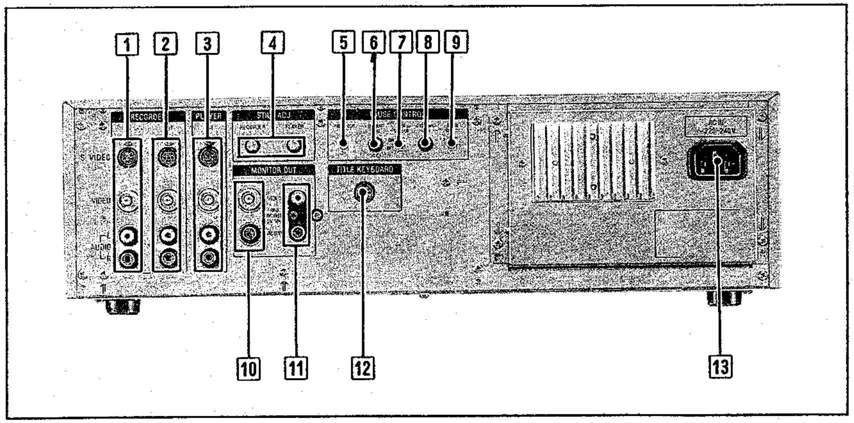
You can select the sound to be recorded on the RECORDER and the sound to be monitored through the MONITOR OUT/RECORDER OUT-AUDIO jacks with the AUDIO OUTPUT SELECT-PLAYER buttons and the AUDIO OUTPUT SELECT-RECORDER/MONITOR selector. The recording sound level can be adjusted with the AUDIO LEVEL controls.
The following chart helps you choose the audio output signals.


PLAYER's tape
Standard track
PCM track
Sound (a)
Sound (b)
AUDIO OUTPUT SELECT-PLAYER buttons
STRAIGHT
PCM
MIX
STD
PLAYER OUT-AUDIO jacks
(a) + (b)
(b)
(a) + (b)
(a)
RECORDER's track
AUDIO LEVEL
Standard track STD
PCM track PCM
(a) (b)
(b) (b)
(a) + (b)
(a) + (b)
(a) (a)
AUDIO OUTPUT SELECT-RECORDER/MONITOR selector
PCM
MIX
STD
Any position
Any position
Any position
(b)
(a) + (b)
(a)
(b)
(a) + (b)
(a)
MONITOR OUT/RECORDER OUT-AUDIO jacks

○ indicates the audio level adjustment by the AUDIO LEVEL controls.


RECORDER's tape
Standard track
PCM track
Sound (a)
Sound (b)
AUDIO OUTPUT SELECT-RECORDER/MONITOR selector
PCM
MIX
STD
MONITOR OUT/RECORDER OUT-AUDIO jacks
(b)
(a) + (b)
(a)

## Rear of the VTR



1 **RECORDER IN jacks**
**S VIDEO:** 4-pin mini DIN connector
**VIDEO:** BNC connector
**AUDIO:** 2 phono jacks, stereo
The video and audio signals to be recorded on the RECORDER are input.

2 **RECORDER OUT jacks**
**S VIDEO:** 4-pin mini DIN connector
**VIDEO:** BNC connector
**AUDIO:** 2 phono jacks, stereo
The video and audio signals being played back or being recorded on the RECORDER are output.

3 **PLAYER OUT jacks**
**S VIDEO:** 4-pin mini DIN connector
**VIDEO:** BNC connector
**AUDIO:** 2 phono jacks, stereo
The video and audio signals being played back on the PLAYER are output. Select the output audio signal with the AUDIO OUTPUT SELECT-PLAYER buttons.

4 **STILL ADJ (still picture adjustment) screws**
When the still picture appears to flicker, turn these screws in order to stabilize the picture best. The RECORDER screw is for the tape in the RECORDER, and the PLAYER screw for the tape in the PLAYER.

**Note**

The picture may not become stable completely by adjusting these screws. This is not a failure of the unit.

5 **PAUSE OUT jack (minijack) (74)**
Connect this jack to the CONTROL L jack or the camera pause jack of the VTR connected to the PLAYER OUT jacks for systematic editing operations.

6 **IN POINT ADJ (IN point adjustment) knob (76)**
When editing onto the VTR connected to the PAUSE OUT jacks, turn this knob so that editing starts exactly at the IN point specified on the PLAYER.

7 **DATA SCREEN switch (76)**
When adjusting the IN and OUT points of editing, set to ON to display the information for the adjustment on the monitor screen. To turn off the information, set it to OFF.

8 **OUT POINT ADJ (OUT point adjustment) knob (76)**
When editing onto the VTR connected to the PAUSE OUT jacks, turn this knob so that editing stops exactly at the OUT point specified on the PLAYER.

9 **MODE SELECT switch (74)**
When a VTR is connected to the PAUSE OUT jack, select the pause control mode of the VTR with this switch.

10 **MONITOR OUT jacks** (for a monitor equipped with a BNC-type video input)
**VIDEO:** BNC connector
**AUDIO:** phono jack, monaural
Connect the colour monitor equipped with the BNC-type video input connector and the phono-type audio input jack to these jacks. The picture-in-picture function is operable on the screen of the monitor connected to these jacks. Select the output audio signal with the AUDIO OUTPUT SELECT-RECORDER/MONITOR selector.

11 **MONITOR OUT jacks** (for a monitor equipped with a phono-type video input)
**VIDEO:** phono jack
**AUDIO:** phono jack
**RFU DC OUT:** special minijack
When the TV or colour monitor is equipped with phono-type video and audio input jacks, connect it to the VIDEO and AUDIO jacks of this unit.
When the TV or colour monitor is not equipped with the video and audio input jacks, use the RFU-89EKA RFU adaptor (not supplied). Connect the RFU adaptor to the VIDEO, AUDIO and RFU DC OUT jacks of this unit.
The picture-in-picture function is operable on the screen of the monitor connected to these jacks. Select the output audio signal with the AUDIO OUTPUT SELECT-RECORDER/MONITOR selector.

12 **TITLE KEYBOARD connector (5-pin DIN)**
Connect the supplied title keyboard.

13 **AC IN (inlet)**
Connect the supplied AC power cord.

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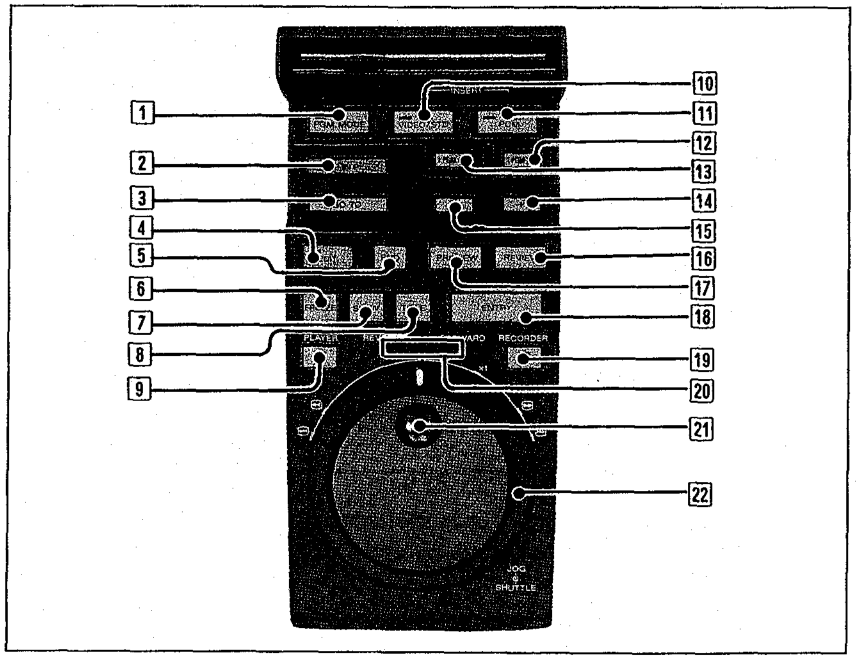
**Output audio signal**
The audio signal output from each output jack is specified by the positions of the selectors on the front panel. See pages 12 and 13.

## Editing Controller



1 **PGM MODE (programme mode) button and indicator ㊶**
Press to set the unit to the programme editing mode. The indicator lights in the programme editing mode.

2 **P IN P button**
Press to set to picture-in-picture mode. The subsidiary picture appears on the upper corner of the screen. Press it again to release the picture-in-picture mode.

3 **GO TO button ㊹**
Press to run the tape to the IN or OUT point of the programme selected with the +/– buttons. When the selected point is located, the PLAYER is set to the playback pause mode.

4 **EDIT button and indicator**
Press to start quick editing, programme editing or insert editing. The indicator blinks during pre-roll before editing, and it lights during editing.

5 **END button**
Press to stop quick editing, programme editing or insert editing. When this button is pressed, both the RECORDER and PLAYER are set to the playback pause mode.

6 **FREEZE button**
When the RECORDER INPUT SELECT-VIDEO selector is set to PLAYER, press to set the PLAYER to the freeze picture editing mode. "FRZ" appears on the monitor screen. Press it again to release the freeze picture editing mode. When the RECORDER INPUT SELECT-VIDEO selector is set to LINE, use this button to edit the picture from external equipment as a freeze picture.

7 **SLOW button**
When the RECORDER INPUT SELECT-VIDEO selector is set to PLAYER, press to set the PLAYER to the slow-motion picture editing mode. "SLOW" appears on the monitor screen. Press it again to release the slow-motion picture editing mode. When the RECORDER INPUT SELECT-VIDEO selector is set to LINE, this button does not operate.

8 **TITLE button**
Press to set the unit to the title mode. Press it again to release the title mode. This button has the same function as the TITLE button on the title keyboard.

9 **PLAYER button and indicator**
Press to set the unit to the PLAYER mode. The picture of the tape inserted into the PLAYER is displayed as the main picture on the screen, and can be controlled by means of the JOG dial and SHUTTLE ring. The indicator lights to indicate the PLAYER mode.

10 **INSERT VIDEO/STD (video/standard track) button and indicator (56)**
Press to set the unit to the video insert mode. The indicator lights to indicate the video insert mode.

11 **INSERT PCM button and indicator (66)**
Press to set the unit to the audio insert mode. The indicator lights to indicate the audio insert mode.

12 **1 PGM INS (one programme insert) button ㊺**
In the programme editing mode, press to add one scene between the previously stored programmes.

13 **1 PGM DEL (one programme delete) button ㊺**
In the programme editing mode, press to delete the editing data of a programme number selected with the +/– buttons.
The next editing data is assigned to that programme number.

14 **+ button**
Press to display the desired editing data on the monitor screen.
Each time this button is pressed, the next editing data appears: the IN point of programme 1, the OUT point of programme 1, the IN point of programme 2, etc. in order.

15 **– button**
Press to display the desired editing data on the monitor screen.
Each time this button is pressed, the previous editing data appears.

16 **REVIEW button ㉝ ㊺ (59)**
In the quick editing, programme editing, or insert editing mode, press to review the edited scene.

17 **PREVIEW button ㊷ ㊺ (57) (58) (67)**
In the programme editing mode, press to preview one of the designated scenes. (One Programme Play)
In the insert editing mode, press to preview the scene to be inserted.
This button operates only when the time code is recorded on the tape in the PLAYER.

18 **ENTRY button**
In the programme editing or insert editing mode, press to store the editing data such as the IN and OUT points in memory.

19 **RECORDER button and indicator**
Press to set the unit to the RECORDER mode. The picture of the tape inserted into the RECORDER is displayed as the main picture on the screen, and can be controlled by means of the JOG dial and SHUTTLE ring. The indicator lights to indicate the RECORDER mode.

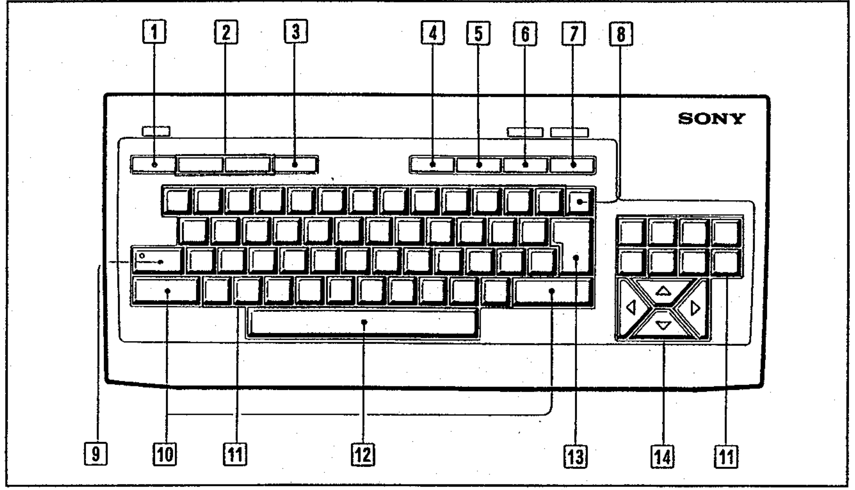
20 **JOG/SHUTTLE indicator**
■: Lights when the JOG dial or SHUTTLE ring is in use.
▶: Lights when the tape is transported in a forward direction.
◀: Lights when the tape is transported in a reverse direction.

21 **JOG dial**
Turn this dial in the playback pause mode. The playback tape speed will be according to the speed you are turning the dial: between 1/25 normal speed (frame-by-frame playback) and double speed in the forward direction, and between 1/25 normal speed and 3 times normal speed in the reverse direction.

22 **SHUTTLE ring**
Turn and hold this ring. The tape will be played back at a speed according to the angle at which you hold the ring: 1/5, normal, double, 9 times or 15 times normal speed in the forward direction; and 1/5, normal, 3 times, 7 times or 13 times normal speed in the reverse direction.

## Title Keyboard

For the use of the title keyboard, see page 78.



1 **TITLE/CLEAR key**
This key has the same function as the TITLE button on the controller.
Press to set the VTR to title mode. The cursor blinks on the monitor screen to allow the creation of a title.
To clear the title being displayed, press this key while pressing the SHIFT key.

2 **PAGE +/– keys**
Select the title page (1 through 25). Press the PAGE + key to display the next page, and the PAGE – key to display the previous page.

3 **GO TO key**
This key has the same function as the GO TO key on the controller.
Press to run the tape to the IN or OUT point of the programme selected with the +/– buttons on the editing controller. When the selected point is located, the PLAYER is set to the playback pause mode.

4 **SIZE key**
Four character sizes can be selected.
Two sizes of characters can be used in one title: one size for the characters of the first line, and the other for the characters of the second line and later.

5 **COLOR key**
Select the background colour. Seven colours and a transparent background can be selected.

6 **CHA INS/LINE INS (character insert/line insert) key**
Press to insert one space. To insert a blank line, press this key while pressing the SHIFT key.

7 **CHA DEL/LINE DEL (character delete/line delete) key**
Press to delete the character at thé cursor position.
To delete all characters on one line, press this key while pressing the SHIFT key.

8 **BS (back space) key**
Press to move the cursor by one space to the left. If there is a character at that position, it will be deleted.

9 **CAPS LOCK (capitals lock) key**
Press to lock this key to obtain capital letters when you press character keys. Press it again to release.

10 **SHIFT key**
Keeping this key pressed, press a character key for a capital letter, or press a number or symbol key for the symbol indicated on the upper part of the key.

11 **Character, number and symbol keys**
Use these keys as you would with an ordinary typewriter.

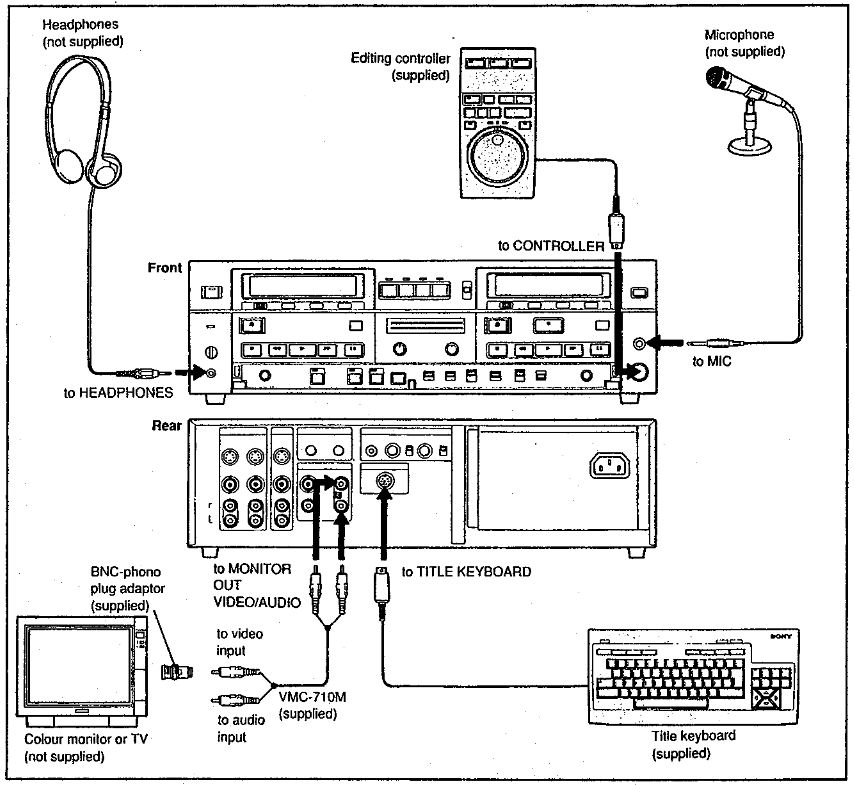
12 **Space bar**
Press to move the cursor by one space to the right.
If there is a character at that position, it will be deleted and a space will remain.

13 **⏎(cursor return) key**
Press to move the cursor to the left margin of the next line.

14 **Cursor control keys**
Press to move the cursor in the direction indicated on the keys.

## Basic System Connection

For tape playback and editing, connect a colour monitor (not supplied), the supplied editing controller and title keyboard as illustrated.
The headphones and microphone may be connected as required.

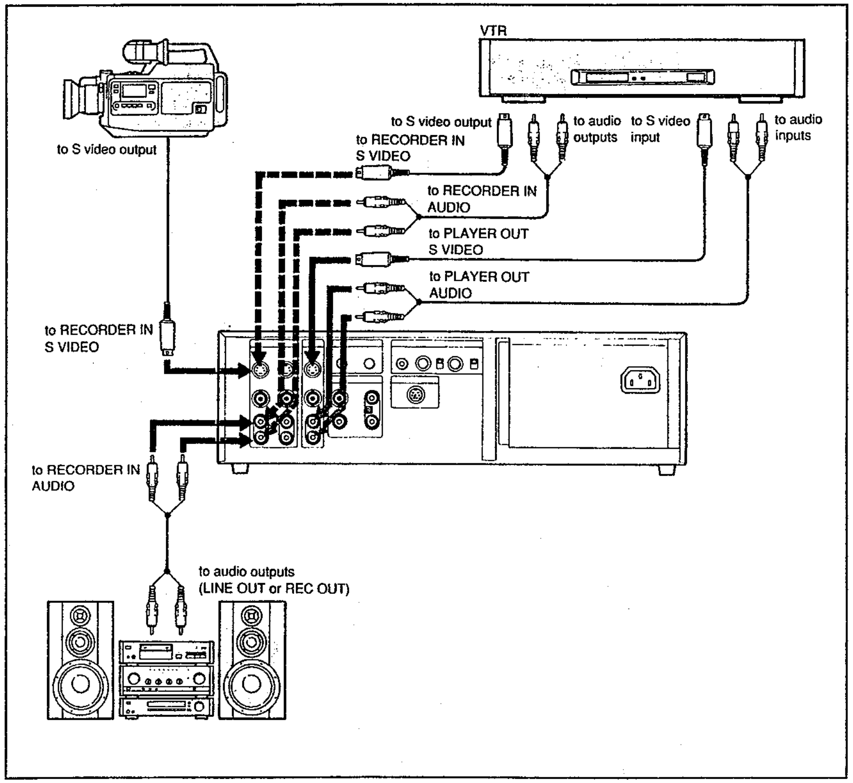

Headphones
(not supplied)
Editing controller
(supplied)
Microphone
(not supplied)
to CONTROLLER
Front
to MIC
to HEADPHONES
Rear
BNC-phono
plug adaptor
(supplied)
to MONITOR
OUT
VIDEO/AUDIO
to TITLE KEYBOARD
to video
input
VMC-710M
(supplied)
to audio
input
Colour monitor or TV
(not supplied)
Title keyboard
(supplied)

**Note**

To connect a TV not equipped with the video/audio inputs, use the RFU-89EKA RFU adaptor (not supplied).

## Connection of External Equipment

When recording from a video camera, another VTR, stereo system, etc. connect the required equipment using the appropriate connecting cord, in addition to the basic system connection.


VTR
to S video output
to S video output
to RECORDER IN
S VIDEO
to audio
outputs
to S video
input
to audio
inputs
to RECORDER IN
AUDIO
to PLAYER OUT
S VIDEO
to PLAYER OUT
AUDIO
to RECORDER IN
S VIDEO
to RECORDER IN
AUDIO
to audio outputs
(LINE OUT or REC OUT)

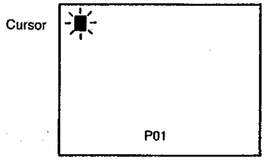
**When the external video equipment is not provided with the S video input/output**
Connect the video input/output of the equipment to the BNC-type VIDEO OUT or VIDEO IN connector of this unit. If the video input/output of the equipment is a phono jack, use the supplied BNC-phono plug adaptor.

# Creating Titles

The title keyboard supplied allows creation of the titles to be inserted in quick editing, programme editing or insert editing. You can create a title during the editing process or before and after the editing data designation.
For connection of the title keyboard, see page 20.

## How to Use the Title Keyboard

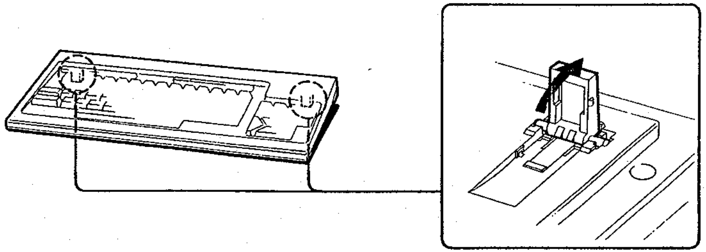
**To start creating a title**
Press the TITLE button on the controller or on the keyboard. The cursor blinks on the monitor screen.
A character can be input at the cursor position.



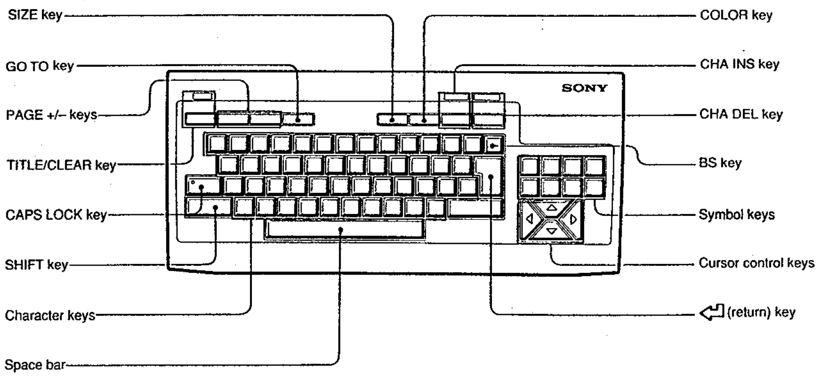
**To input a character**
Press the desired character key.
"SHIFT +" in the table below means: keeping the SHIFT key pressed, press the key on the right of the "+" symbol.

| Character to be input | Keys to be pressed | Example | |
|---|---|---|---|
| | | To input: | Press: |
| Capital letter | SHIFT + Character key | M | SHIFT + M |
| | Character key<br>(with CAPS LOCK locked) | M | M |
| Small letter | Character key | m | M |
| Number | Number key | 7 | û<br>7 |
| Symbol indicated on the lower part of the key | Symbol key | | |
| Symbol indicated on the upper part of the key | SHIFT + Symbol key | û | SHIFT + û<br>7 |

**How to use the feet on the bottom**



### To create a title



| | | |
|---|---|---|
| Background colour | To select the colour | Press the COLOR key.<br>Seven colours and a transparent background can be selected.<br>Each time the key is pressed, the colour cyclically changes as follows:<br>transparent→black→gray→violet→blue<br>magenta←ocher←green← |
| | To superimpose the title | Select transparent with the COLOR key. |
| Character | To delete a character at the cursor position | Press the CHA DEL key. |
| | To delete characters on the entire line | Keeping the SHIFT key pressed, press the CHA DEL key. |
| | To delete the previous character | Press the BS (back space) key. |
| | To insert a character | Press the CHA INS key.<br>A blank space is inserted at the cursor position. Input a new character. |
| | To insert a blank line | Move the cursor to the left margin, and keeping the SHIFT key pressed, press the CHA INS key. |

(Continued)

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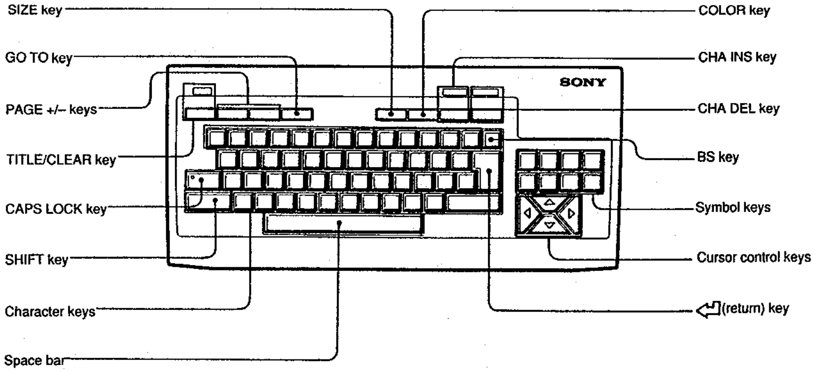
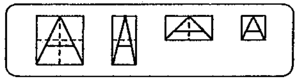
**Background colour designated in programme editing mode**
The background colour designated in programme editing mode is not effective in other editing modes. Only the title characters are displayed in those modes.

## To create a title



| | | |
|---|---|---|
| **Character** | **To change the character size** | Press the SIZE key.<br>Each time the key is pressed, the cursor size, that is the character size, changes in the order as illustrated below.<br><br>Characters of two different sizes can be used on one title: one for the first line, and the other for the second line or later. Press the SIZE key when the cursor is on the first line, and when it is on the second line or later, respectively. |
| | **To delete all the characters on the screen** | Keeping the SHIFT key pressed, press the TITLE/CLEAR key. |
| **Cursor** | **To move** | Press the cursor control key.<br>The cursor moves in the direction indicated on the key. |
| | **To move to the next line** | Press the ⏎ key. |

### To display the title on the next or previous title page

Press the PAGE + key for the next page, and the PAGE – key for the previous page. Pages 1 through 25 can be selected. The characters displayed on each page are retained in memory.

### To display the IN point on which a title is to be superimposed

In programme editing or insert editing mode, press the +/– buttons on the controller to display the editing data of the desired IN point, and press the GO TO button on the keyboard.

The tape automatically runs to the designated point, and the PLAYER is set to the playback pause mode.

## Creating Titles before or after Scene Designation

Titles of up to 25 pages can be created in a lump and stored in memory, independently of scene designation.

### To create titles before scene designation

1 **Press the TITLE button on the controller to turn on the indicator of the button.**
The cursor blinks and the title page number appears.

2 **Create a title using the title keyboard.**

3 **Press the PAGE + key.**
The next title page appears.

4 **Repeat steps 2 and 3 for each title page.**
Titles of up to 25 pages can be created and stored in memory.

You can recall the desired title during scene designation by pressing the TITLE button and the PAGE +/– key.

### To create titles after the scene designation of programme editing

When you have assigned the title pages to the programme numbers during scene designation (page 49), create a title on each title page as follows:

1 **When the PGM MODE button is lit, press the +/– button on the controller to select the programme number for which you want to create a title.**

2 **If necessary, press the GO TO button to display the scene to superimpose the title.**

3 **Press the TITLE button.**

4 **Create the title using the supplied title keyboard.**

5 **Repeat steps 1 to 3 for other programme numbers.**
Titles of up to 25 pages can be created.

### To change the contents of a title

1 **Press the TITLE button on the controller.**

2 **Press the PAGE + or – key on the title keyboard to display the title to be changed.**

3 **Change the title using the title keyboard.**

### To delete the title

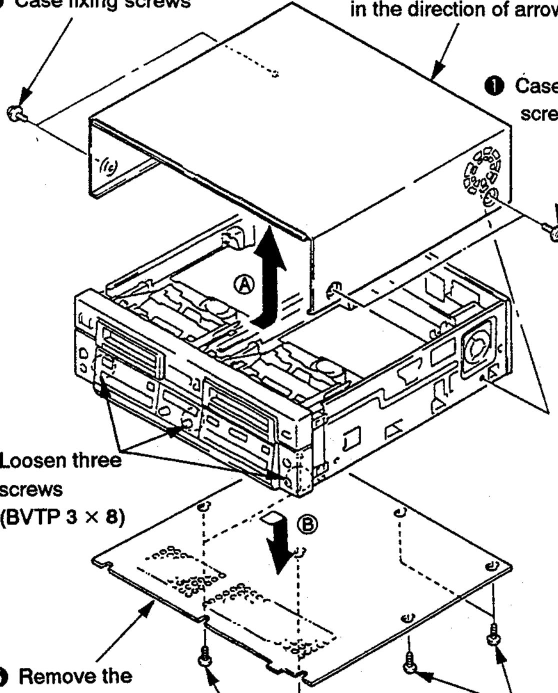
1 **Press the TITLE button on the controller.**

2 **Press the PAGE + or – key on the title keyboard to display the title to be deleted.**

3 **While pressing the SHIFT key, press the TITLE/CLEAR key on the keyboard.**

# SECTION 2
# DISASSEMBLY

## 2-1. REMOVAL OF CABINET



❶ Case fixing screws

❷ Remove the upper cabinet in the direction of arrow Ⓐ

❶ Case fixing screws

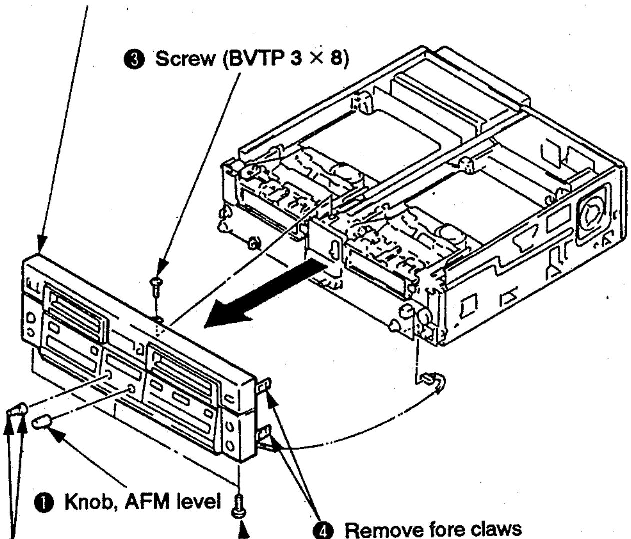
❸ Loosen three screws (BVTP 3 × 8)

❹ Three screws (BVTP 3 × 8)

❹ Three screws (BVTP 3 × 8)

❺ Remove the bottom plate in the direction of arrow Ⓑ

## 2-2. REMOVAL OF FRONT PANEL



❺ Remove the front panel in the direction of arrow

❸ Screw (BVTP 3 × 8)

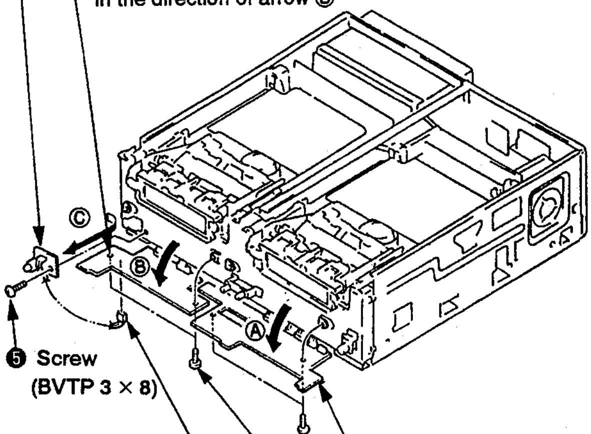
❶ Knob, AFM level

❷ Knob (L), level
Knob (R), level

❹ Remove fore claws

❸ Three screws (BVTP 3 × 8)

## 2-3. REMOVAL OF FB-170, FB-171, HE-3 BOARDS



❻ Remove the HE-3 board in the direction of arrow Ⓒ

❹ Remove the FB-171 board in the direction of arrow Ⓑ

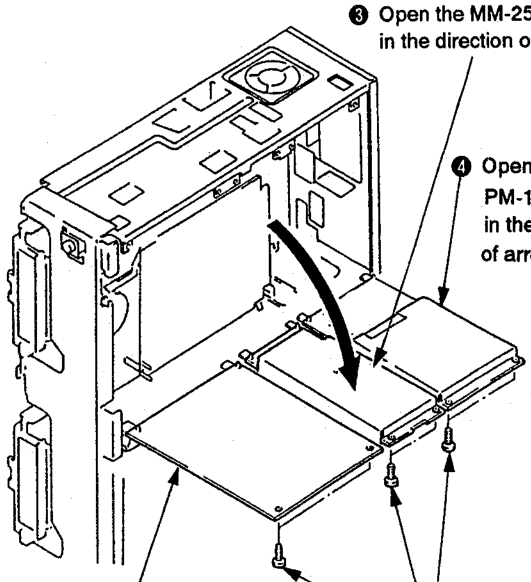
❺ Screw (BVTP 3 × 8)

❶ Connector CN101 3P (FB-171 board)

❸ Remove the FB-170 board in the direction of arrow Ⓐ

❷ Fore screws (BVTP 3 × 8)

## 2-4. OPENING OF AN-2P, MM-25, PM-11P BOARDS



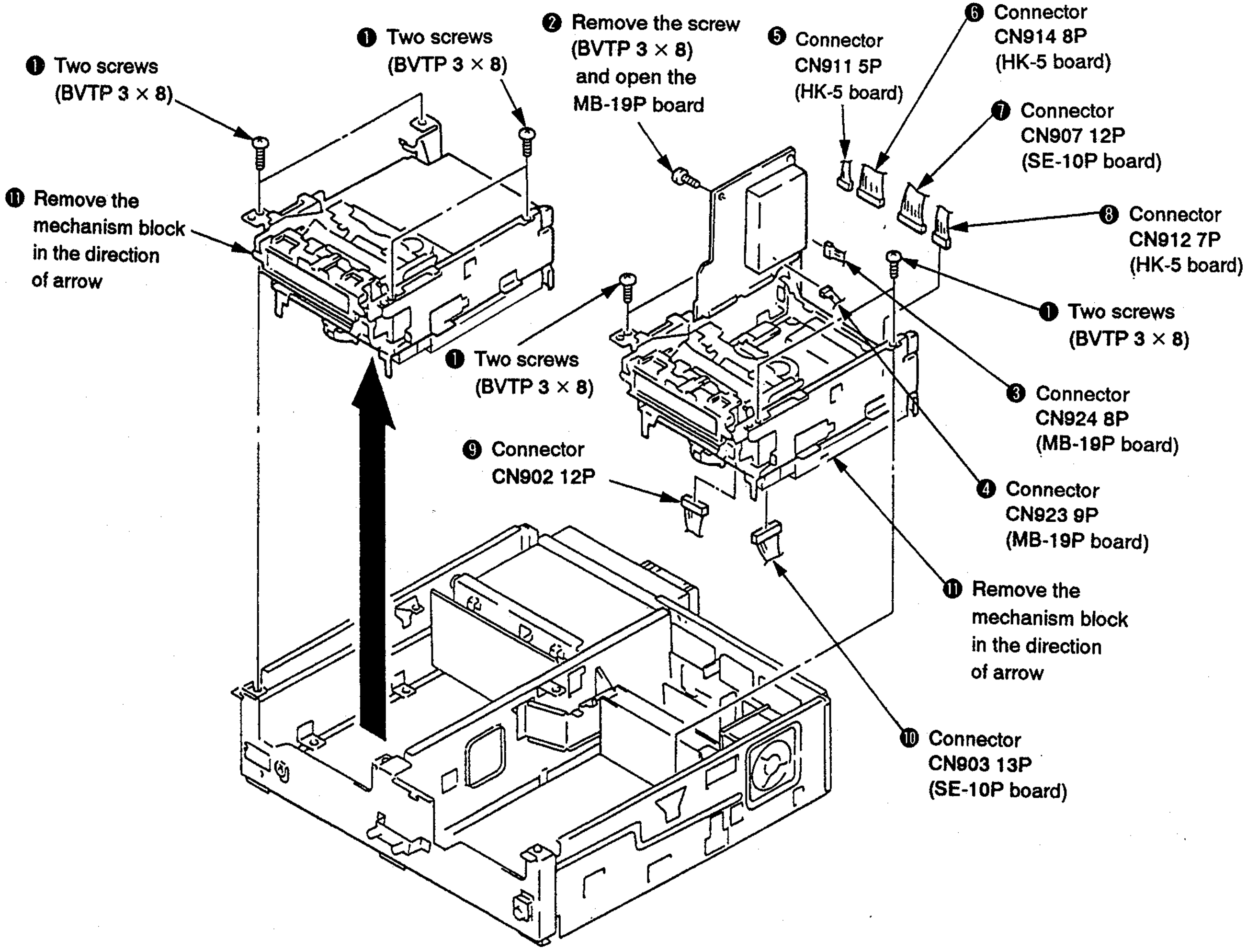
❸ Open the MM-25 board in the direction of arrow

❹ Open the PM-11P board in the direction of arrow

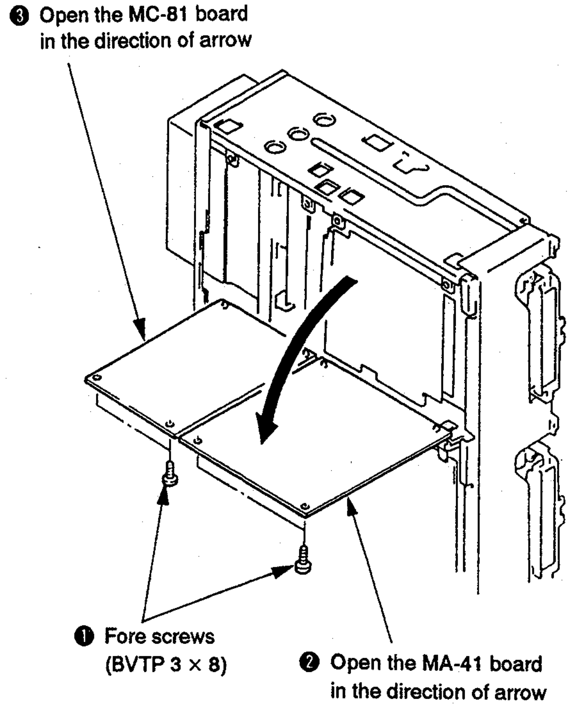
❷ Open the AN-2P board in the direction of arrow

❶ Six screws (BVTP 3 × 8)

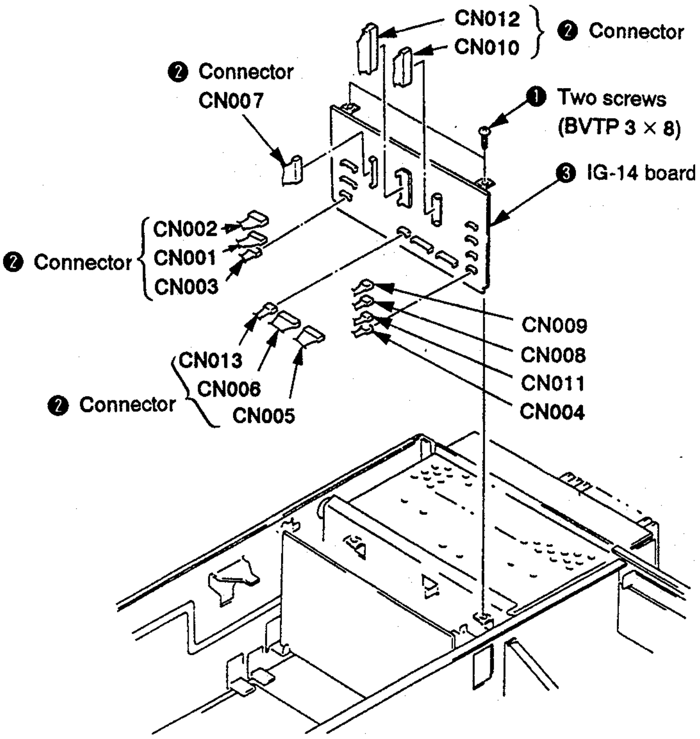
## 2-5. REMOVAL OF MECHANISM BLOCK


❶ Two screws (BVTP 3 × 8)
❶ Two screws (BVTP 3 × 8)
❷ Remove the screw (BVTP 3 × 8) and open the MB-19P board
❺ Connector CN911 5P (HK-5 board)
❻ Connector CN914 8P (HK-5 board)
❼ Connector CN907 12P (SE-10P board)
⓫ Remove the mechanism block in the direction of arrow
❽ Connector CN912 7P (HK-5 board)
❶ Two screws (BVTP 3 × 8)
❶ Two screws (BVTP 3 × 8)
❸ Connector CN924 8P (MB-19P board)
❾ Connector CN902 12P
❹ Connector CN923 9P (MB-19P board)
⓫ Remove the mechanism block in the direction of arrow
❿ Connector CN903 13P (SE-10P board)

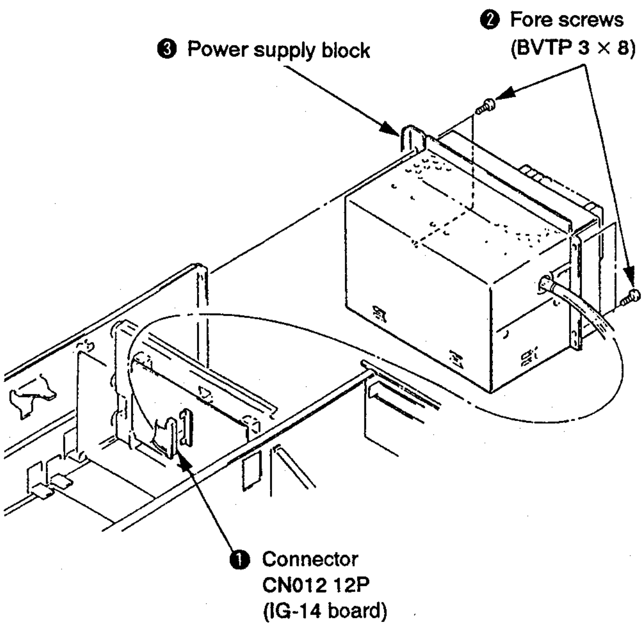
## 2-6. OPENING OF MA-41, MC-81 BOARDS


❸ Open the MC-81 board in the direction of arrow
❶ Fore screws (BVTP 3 × 8)
❷ Open the MA-41 board in the direction of arrow

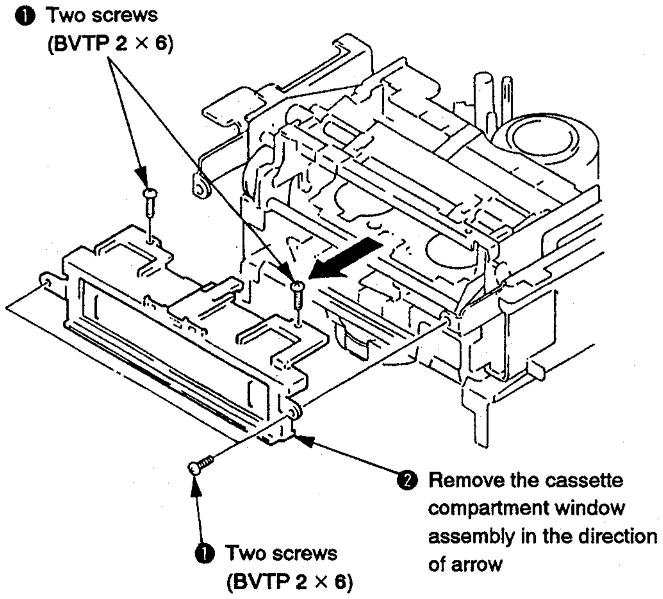
## 2-7. REMOVE OF IG-14 BOARD


CN012
CN010
❷ Connector
❷ Connector CN007
❶ Two screws (BVTP 3 × 8)
❸ IG-14 board
❷ Connector
CN002
CN001
CN003
CN009
CN008
CN011
CN004
❷ Connector
CN013
CN006
CN005

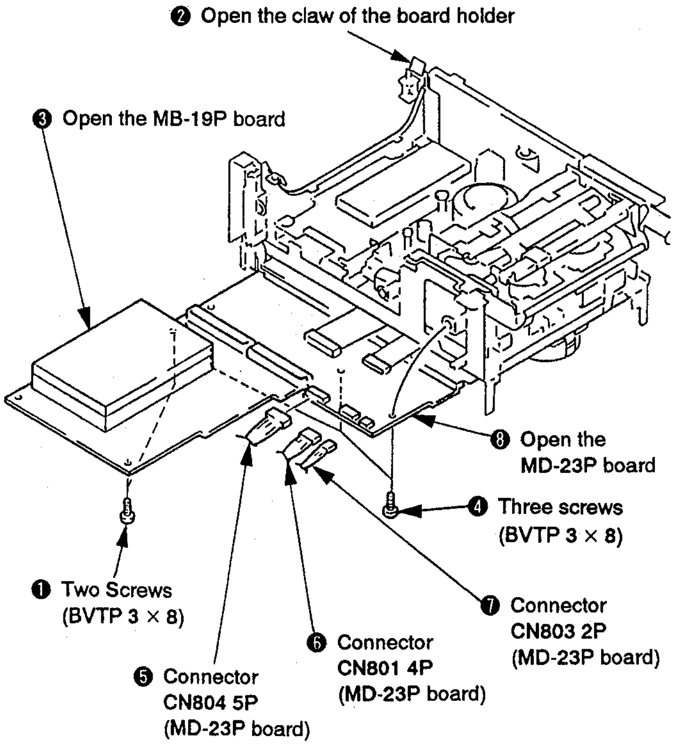
## 2-8. REMOVAL OF POWER SUPPLY BLOCK


❷ Fore screws
(BVTP 3 × 8)
❸ Power supply block
❶ Connector
CN012 12P
(IG-14 board)

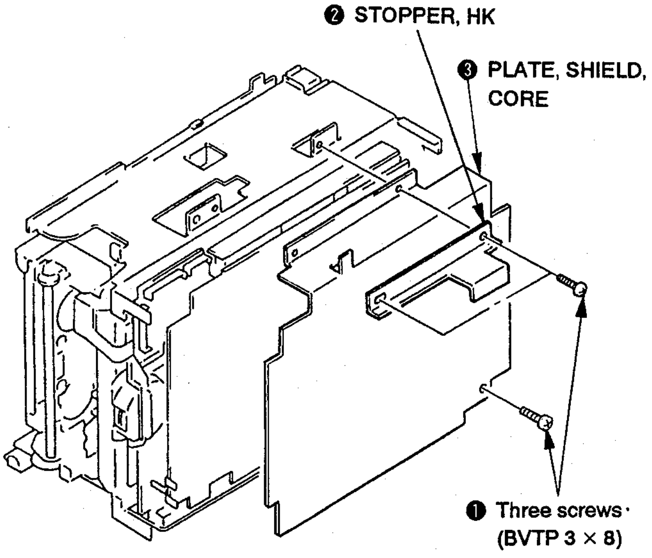
## 2-9. REMOVAL OF CASSETTE COMPARTMENT WINDOW ASSEMBLY


❶ Two screws
(BVTP 2 × 6)
❷ Remove the cassette
compartment window
assembly in the direction
of arrow
❶ Two screws
(BVTP 2 × 6)

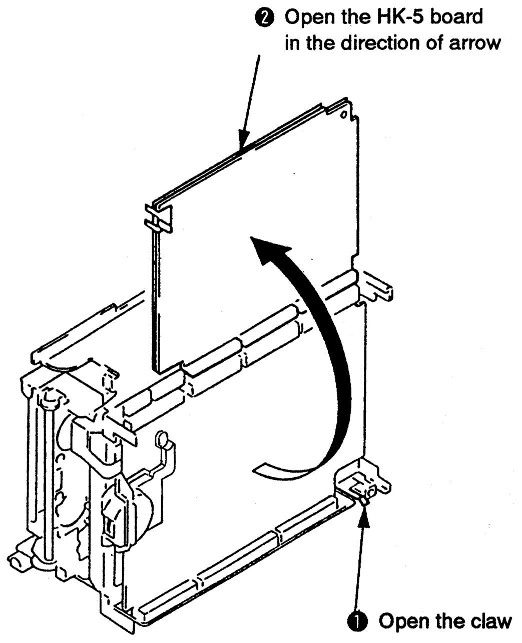
## 2-10. OPENING OF MB-19P, MD-23P BOARD


❷ Open the claw of the board holder
❸ Open the MB-19P board
❽ Open the
MD-23P board
❹ Three screws
(BVTP 3 × 8)
❶ Two Screws
(BVTP 3 × 8)
❼ Connector
CN803 2P
(MD-23P board)
❻ Connector
CN801 4P
(MD-23P board)
❺ Connector
CN804 5P
(MD-23P board)

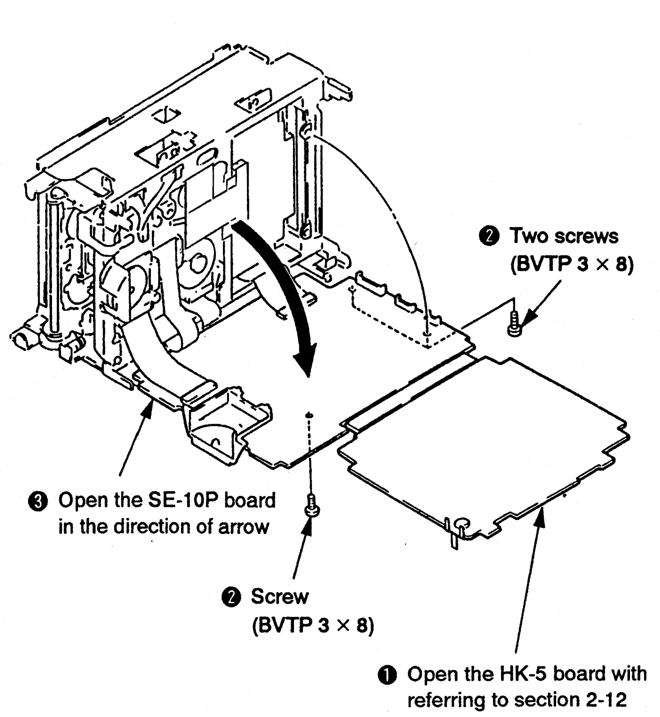
## 2-11. PLATE, SHIELD, CORE


❷ STOPPER, HK
❸ PLATE, SHIELD,
CORE
❶ Three screws
(BVTP 3 × 8)

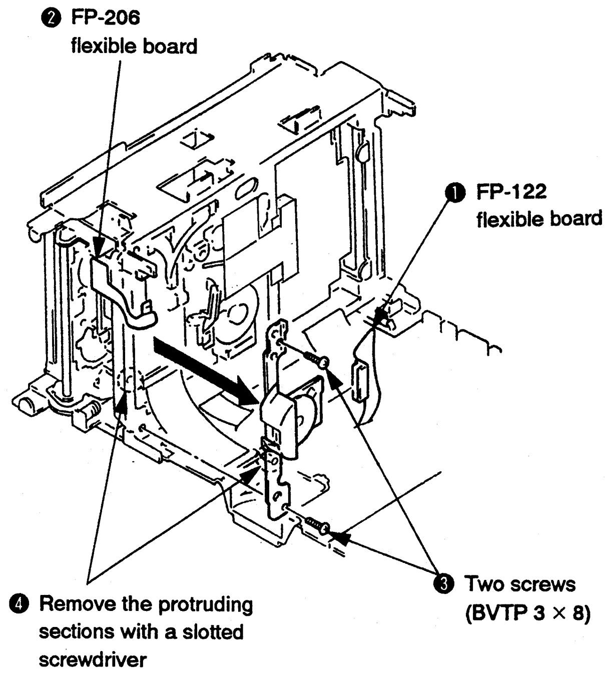
## 2-12. OPENING OF HK-5 BOARD


❷ Open the HK-5 board in the direction of arrow
❶ Open the claw

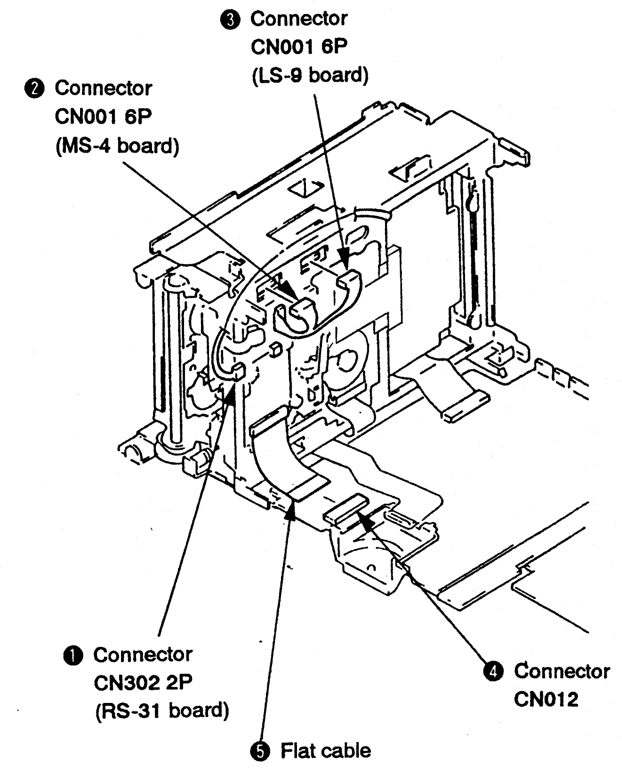
## 2-13. OPENING OF SE-10P BOARD

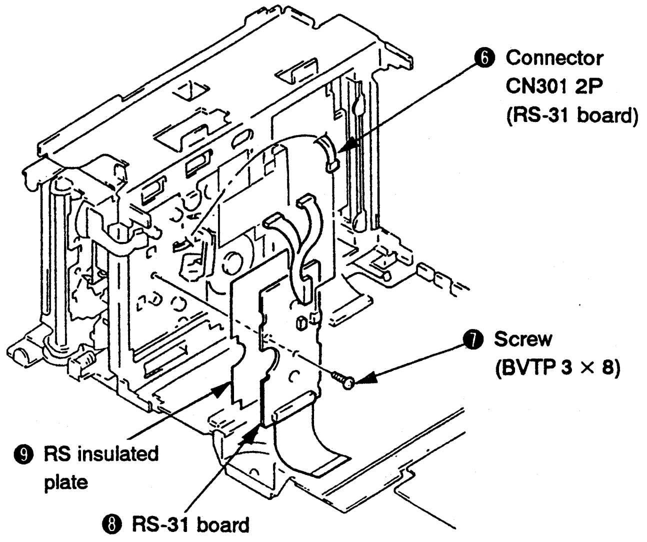

❷ Two screws (BVTP 3 × 8)
❸ Open the SE-10P board in the direction of arrow
❷ Screw (BVTP 3 × 8)
❶ Open the HK-5 board with referring to section 2-12

## 2-14. REMOVAL OF REEL MOTOR

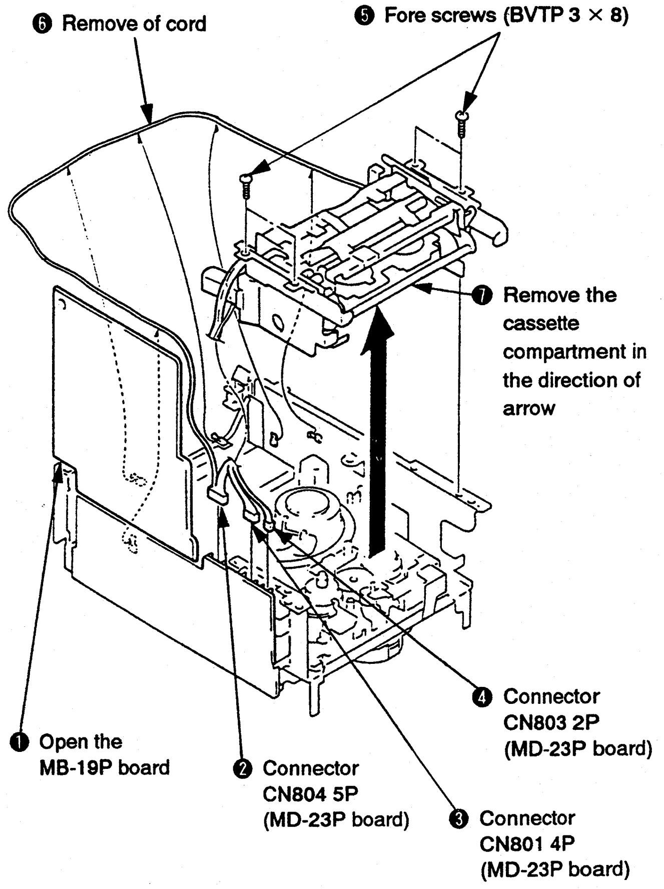

❷ FP-206 flexible board
❶ FP-122 flexible board
❹ Remove the protruding sections with a slotted screwdriver
❸ Two screws (BVTP 3 × 8)

## 2-15. REMOVAL OF RS-31 BOARD

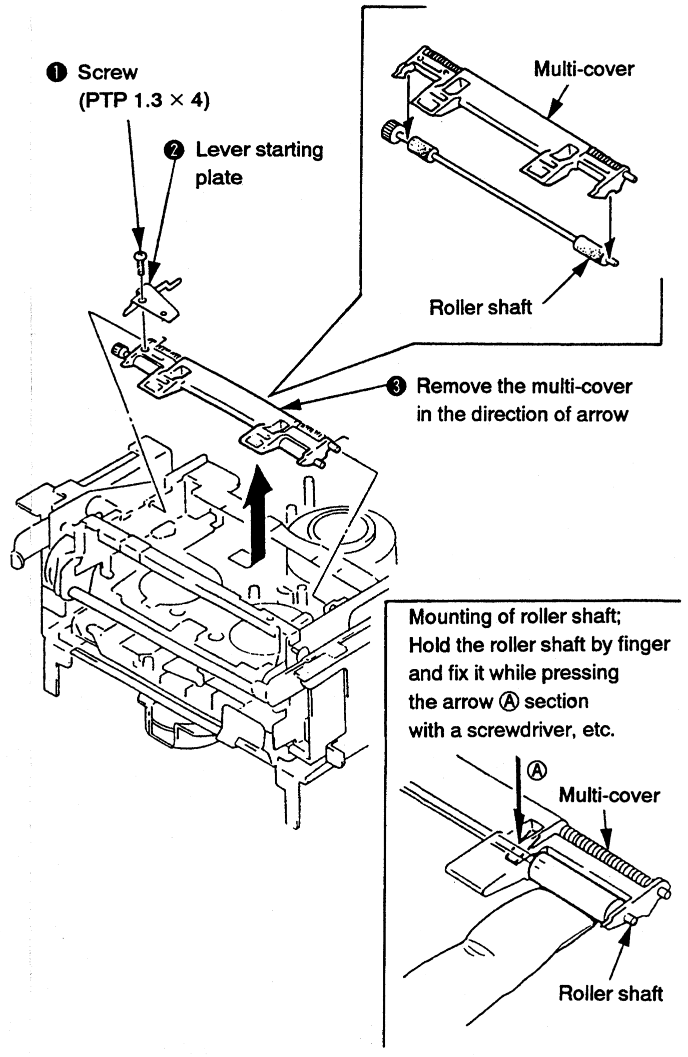

❸ Connector CN001 6P (LS-9 board)
❷ Connector CN001 6P (MS-4 board)
❶ Connector CN302 2P (RS-31 board)
❺ Flat cable
❹ Connector CN012


❻ Connector CN301 2P (RS-31 board)
❼ Screw (BVTP 3 × 8)
❾ RS insulated plate
❽ RS-31 board

## 2-16. REMOVAL OF CASSETTE COMPARTMENT


❻ Remove of cord
❺ Fore screws (BVTP 3 × 8)
❼ Remove the cassette compartment in the direction of arrow
❹ Connector CN803 2P (MD-23P board)
❶ Open the MB-19P board
❷ Connector CN804 5P (MD-23P board)
❸ Connector CN801 4P (MD-23P board)

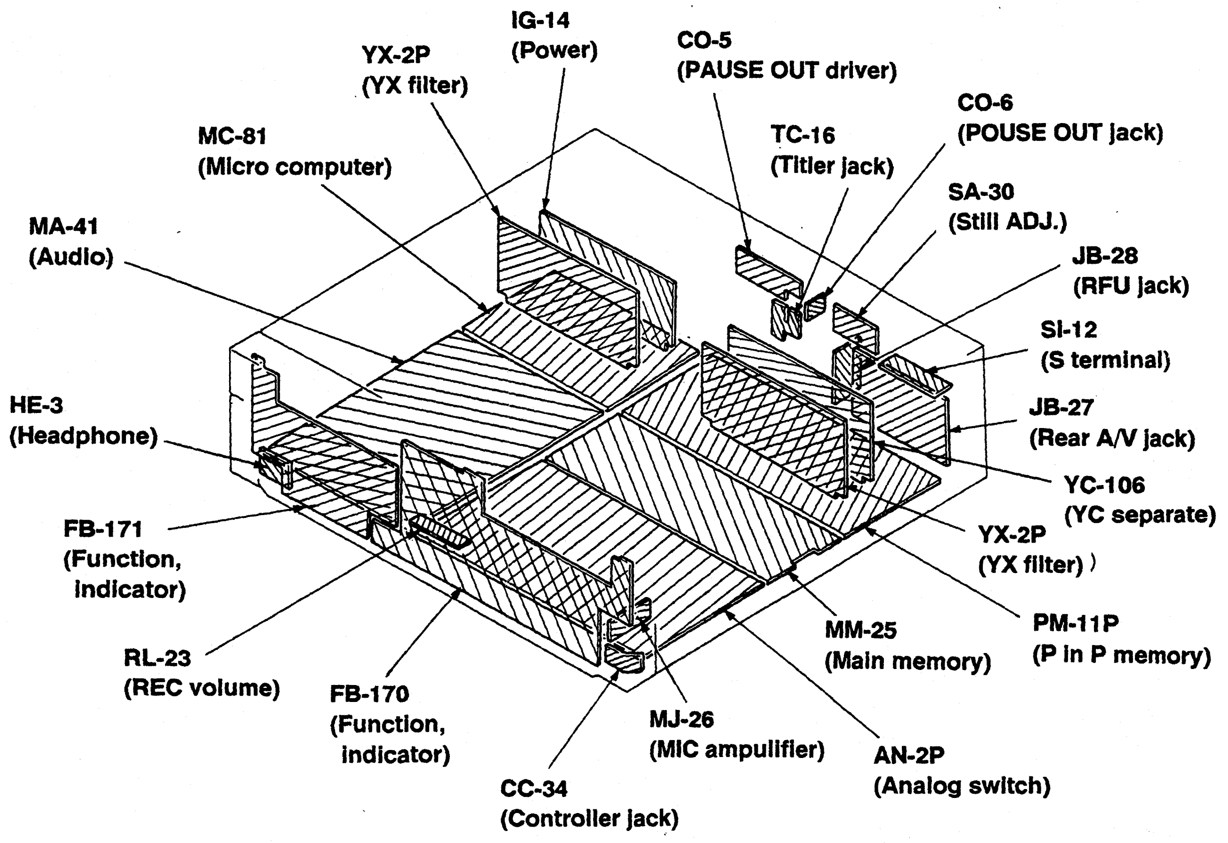
## 2-17. REMOVAL OF MULTI-COVER, ROLLER SHAFT

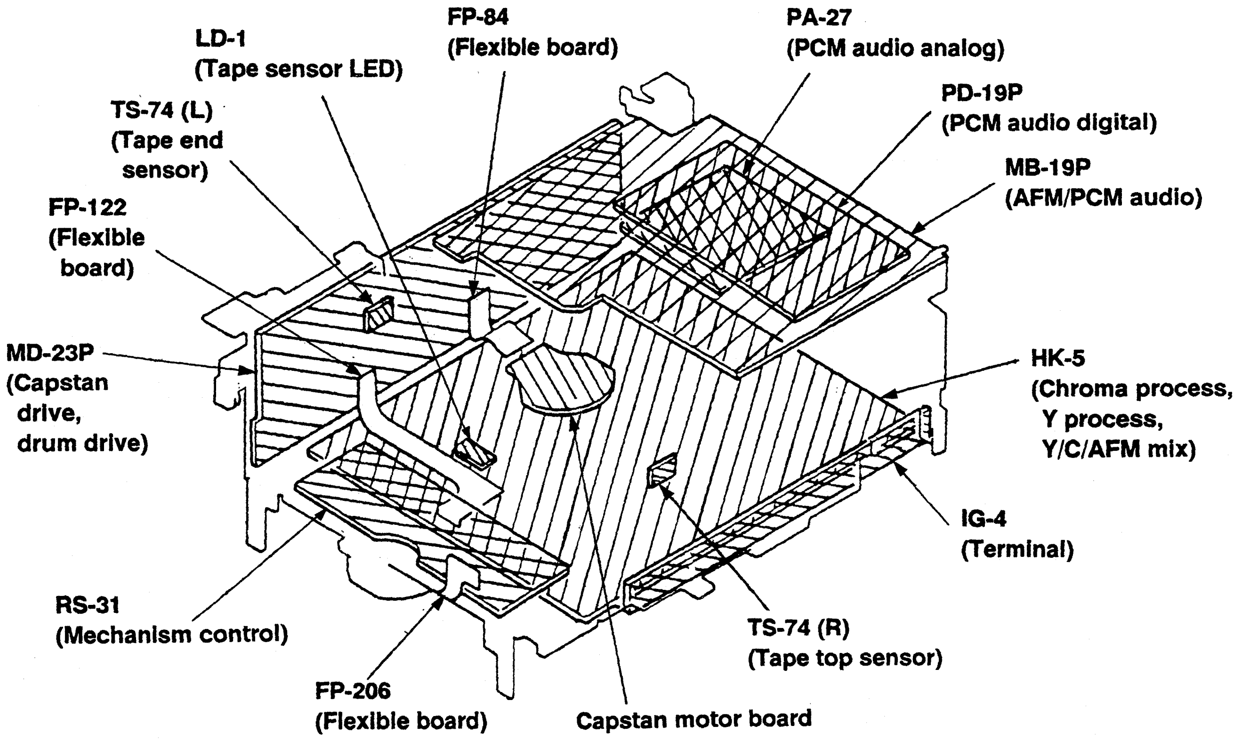

❶ Screw (PTP 1.3 × 4)
❷ Lever starting plate
Multi-cover
Roller shaft
❸ Remove the multi-cover in the direction of arrow
Ⓐ
Multi-cover
Roller shaft

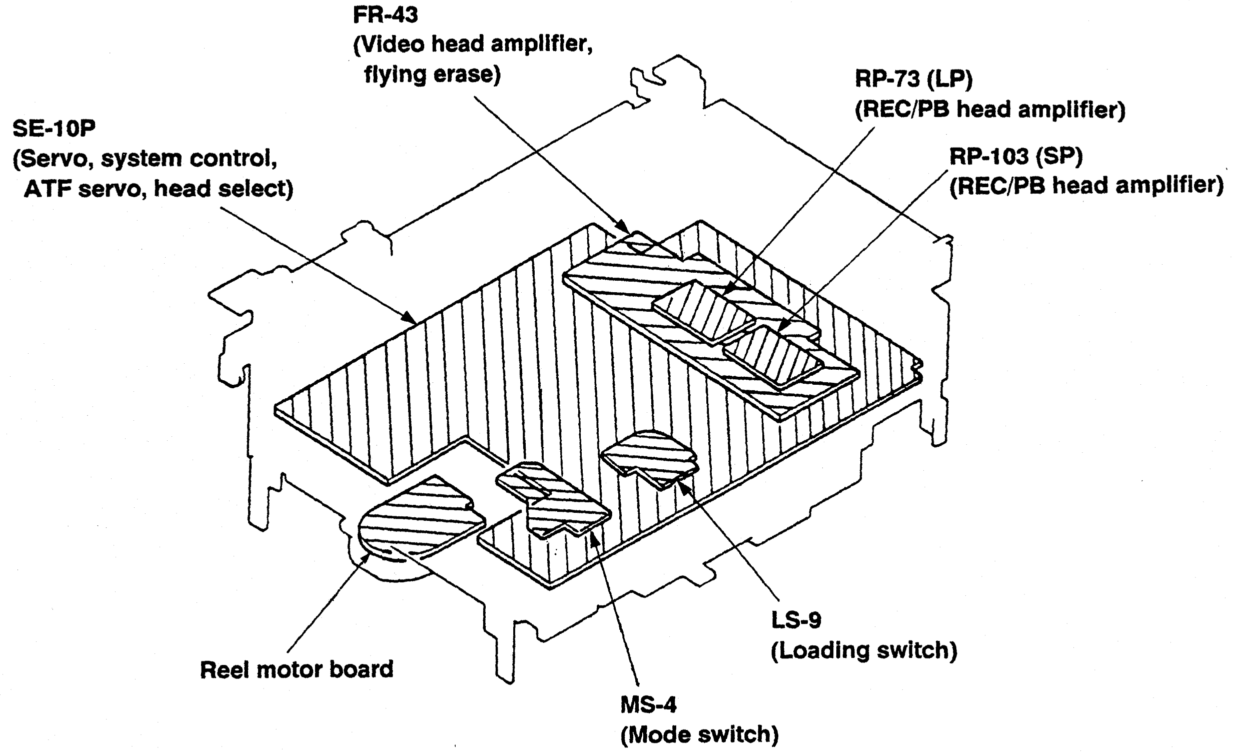
Mounting of roller shaft;
Hold the roller shaft by finger and fix it while pressing the arrow Ⓐ section with a screwdriver, etc.

## SECTION 3
## DIAGRAMS

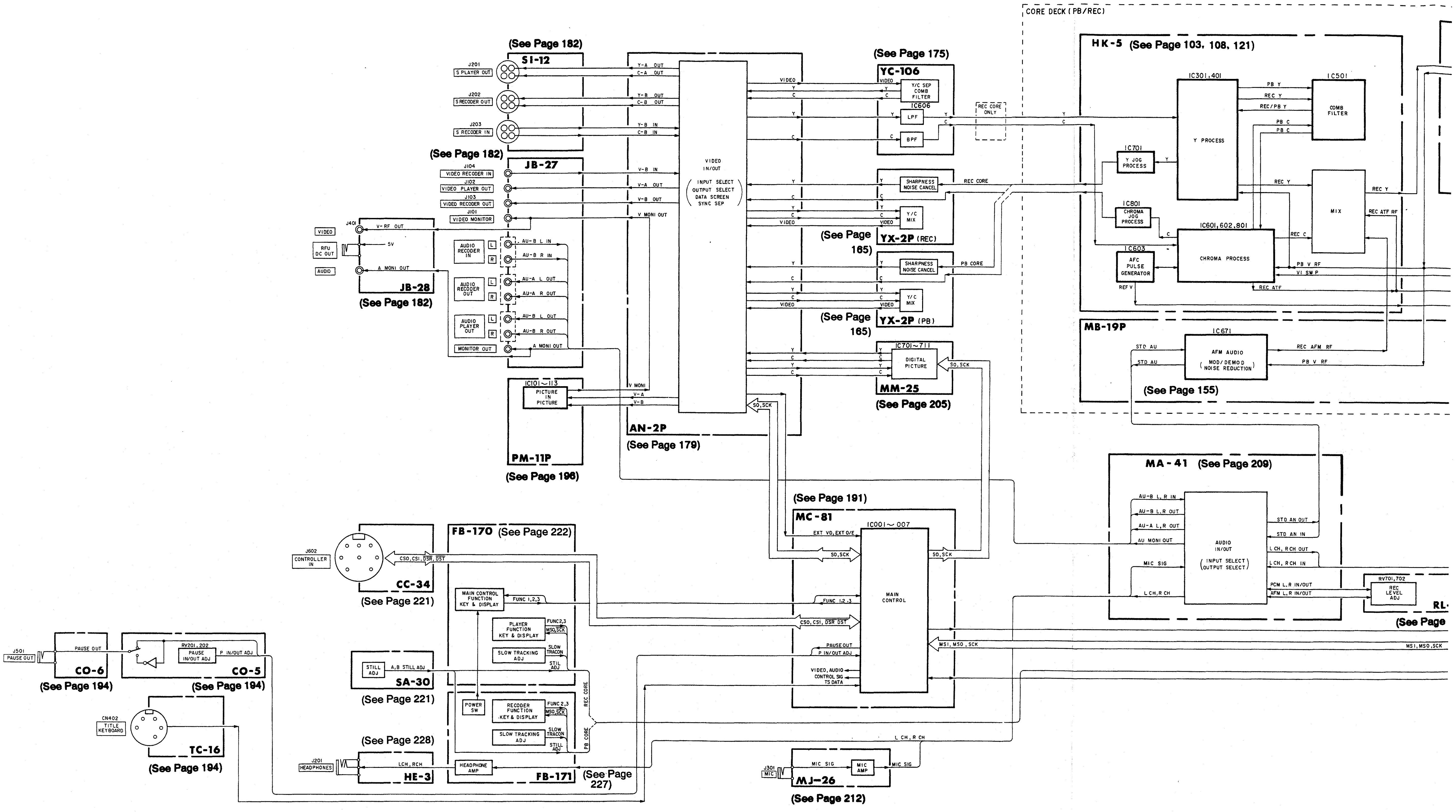
### 3-1. CIRCUIT BOARDS LOCATION

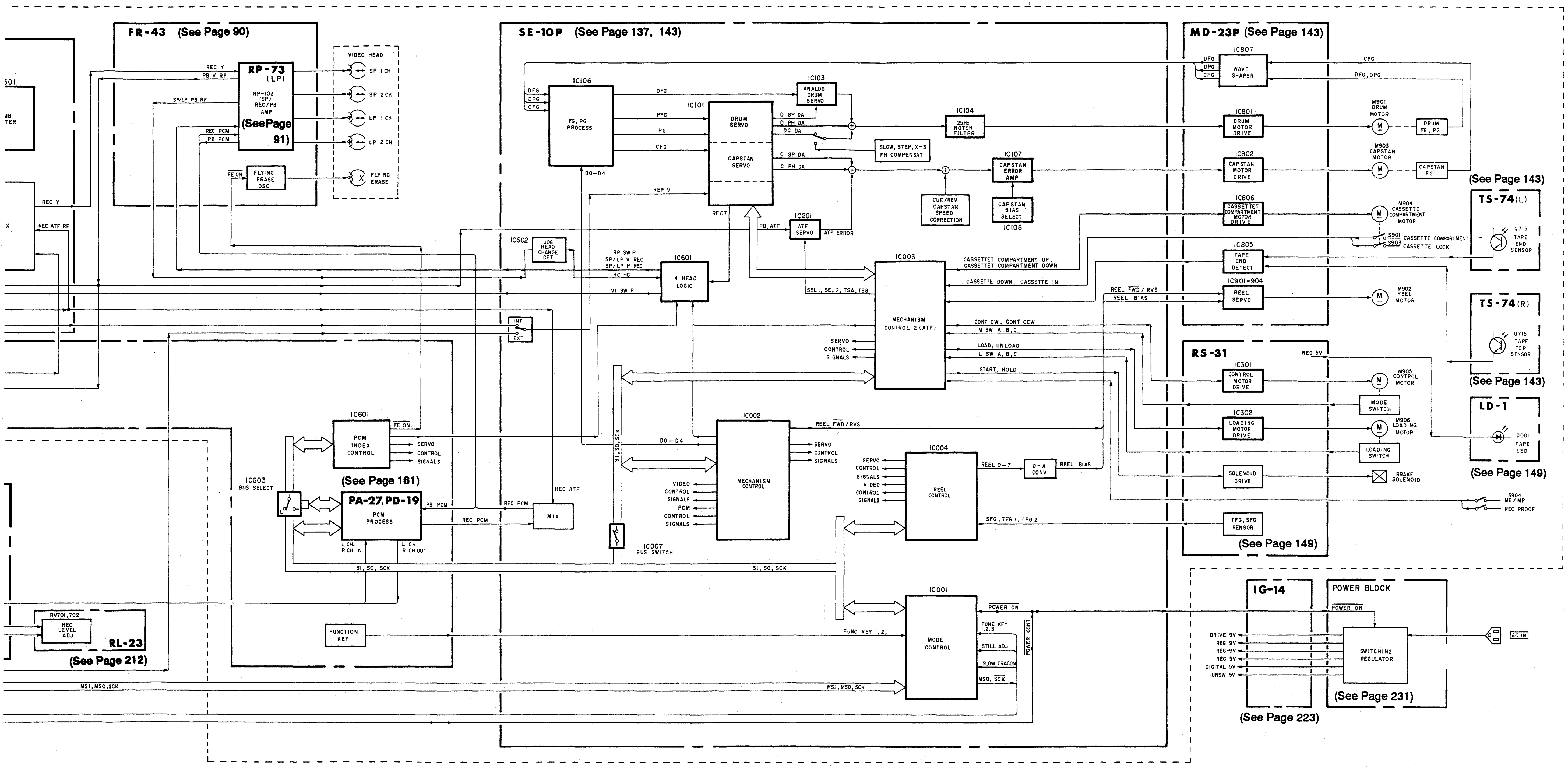

IG-14
(Power)
YX-2P
(YX filter)
CO-5
(PAUSE OUT driver)
MC-81
(Micro computer)
TC-16
(Titler jack)
CO-6
(POUSE OUT jack)
SA-30
(Still ADJ.)
MA-41
(Audio)
JB-28
(RFU jack)
SI-12
(S terminal)
HE-3
(Headphone)
JB-27
(Rear A/V jack)
YC-106
(YC separate)
FB-171
(Function,
indicator)
YX-2P
(YX filter)
RL-23
(REC volume)
FB-170
(Function,
indicator)
MM-25
(Main memory)
PM-11P
(P in P memory)
MJ-26
(MIC ampulifier)
AN-2P
(Analog switch)
CC-34
(Controller jack)


LD-1
(Tape sensor LED)
FP-84
(Flexible board)
PA-27
(PCM audio analog)
TS-74 (L)
(Tape end
sensor)
PD-19P
(PCM audio digital)
MB-19P
(AFM/PCM audio)
FP-122
(Flexible
board)
MD-23P
(Capstan
drive,
drum drive)
HK-5
(Chroma process,
Y process,
Y/C/AFM mix)
IG-4
(Terminal)
RS-31
(Mechanism control)
TS-74 (R)
(Tape top sensor)
FP-206
(Flexible board)
Capstan motor board

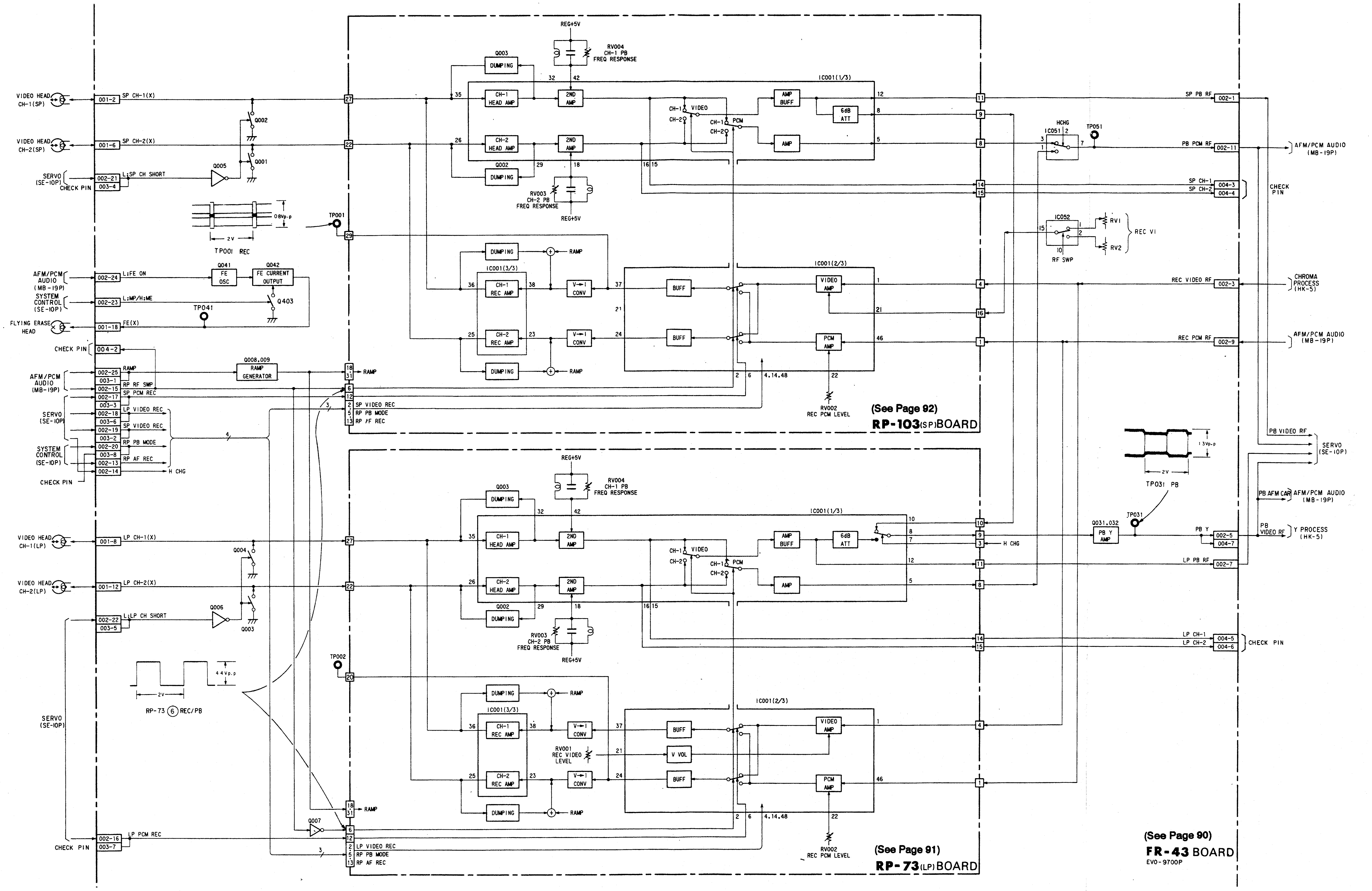

FR-43
(Video head amplifier,
flying erase)
RP-73 (LP)
(REC/PB head amplifier)
SE-10P
(Servo, system control,
ATF servo, head select)
RP-103 (SP)
(REC/PB head amplifier)
Reel motor board
LS-9
(Loading switch)
MS-4
(Mode switch)

## 3-2. OVERALL BLOCK DIAGRAM

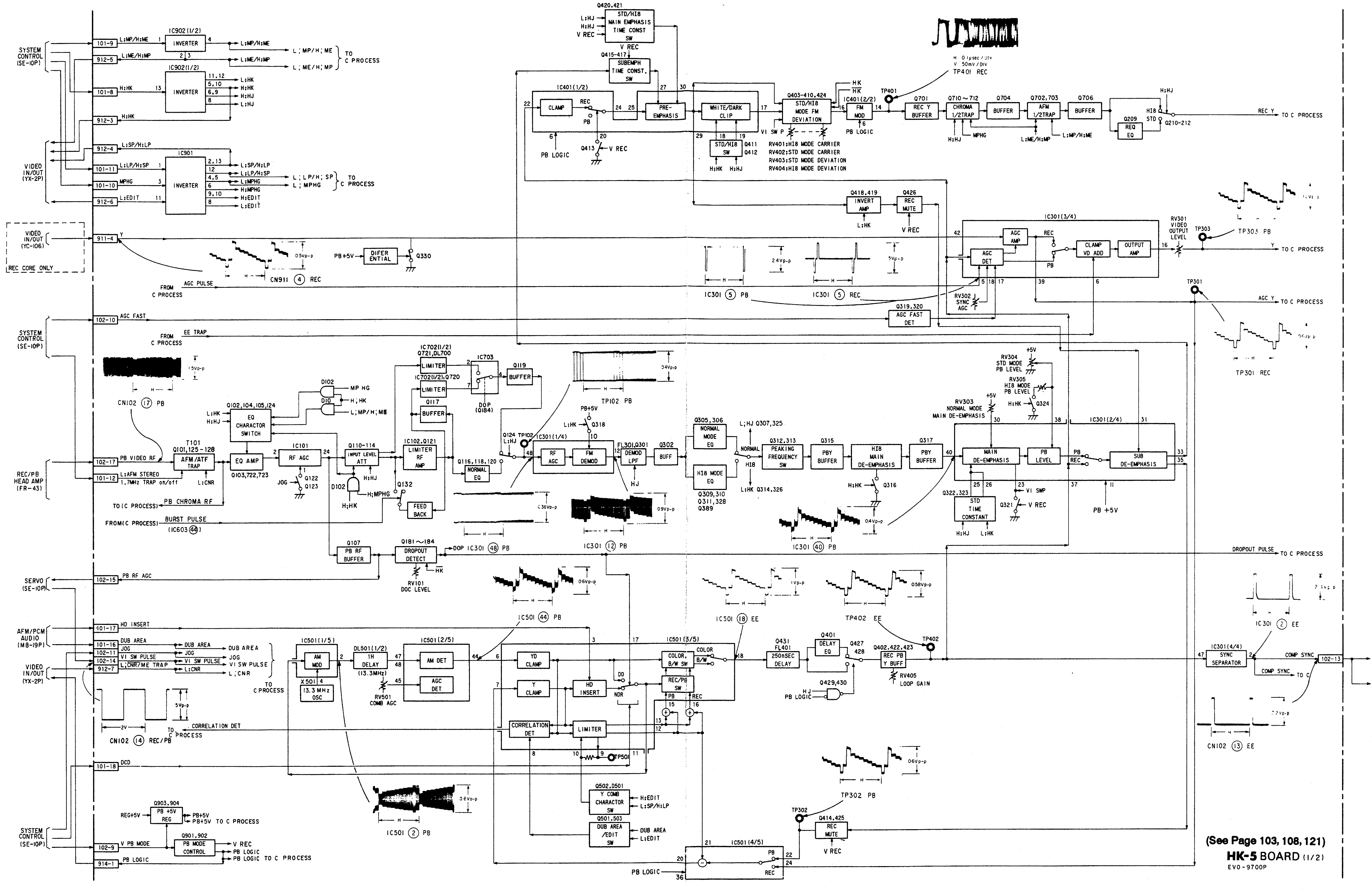

(See Page 182)
SI-12
J201
S PLAYER OUT
J202
S RECODER OUT
J203
S RECODER IN
Y-A OUT
C-A OUT
Y-B OUT
C-B OUT
Y-B IN
C-B IN
(See Page 182)
JB-27
J104
VIDEO RECODER IN
J102
VIDEO PLAYER OUT
J103
VIDEO RECODER OUT
J101
VIDEO MONITOR
V-B IN
V-A OUT
V-B OUT
V MONI OUT
J401
VIDEO
RFU DC OUT
AUDIO
V-RF OUT
5V
A MONI OUT
JB-28
(See Page 182)
AUDIO RECODER IN
AUDIO RECODER OUT
AUDIO PLAYER OUT
MONITOR OUT
L
R
AU-B L IN
AU-B R IN
AU-A L OUT
AU-A R OUT
AU-B L OUT
AU-B R OUT
A MONI OUT
IC101~113
PICTURE IN PICTURE
V MONI
V-A
V-B
PM-11P
(See Page 196)
VIDEO IN/OUT
INPUT SELECT
OUTPUT SELECT
DATA SCREEN
SYNC SEP
SO,SCK
AN-2P
(See Page 179)
VIDEO
Y
C
(See Page 175)
YC-106
Y/C SEP COMB FILTER
IC606
LPF
BPF
REC CORE ONLY
SHARPNESS NOISE CANCEL
Y/C MIX
REC CORE
(See Page 165)
YX-2P (REC)
PB CORE
YX-2P (PB)
IC701~711
DIGITAL PICTURE
MM-25
(See Page 205)
CORE DECK (PB/REC)
HK-5 (See Page 103, 108, 121)
IC301,401
Y PROCESS
IC501
COMB FILTER
PB Y
REC Y
REC/PB Y
PB C
IC701
Y JOG PROCESS
IC801
CHROMA JOG PROCESS
IC601,602,801
CHROMA PROCESS
IC603
AFC PULSE GENERATOR
REF V
MIX
REC C
REC ATF RF
PB V RF
V1 SW P
REC ATF
MB-19P
IC671
AFM AUDIO
MOD/DEMOD
NOISE REDUCTION
STD AU
REC AFM RF
PB V RF
(See Page 155)
MA-41 (See Page 209)
AUDIO IN/OUT
INPUT SELECT
OUTPUT SELECT
AU-B L,R IN
AU-B L,R OUT
AU-A L,R OUT
AU MONI OUT
MIC SIG
L CH,R CH
STD AN OUT
STD AN IN
L CH, R CH OUT
L CH, R CH IN
PCM L,R IN/OUT
AFM L,R IN/OUT
RV701,702
REC LEVEL ADJ
RL
(See Page
MSI,MSO,SCK
(See Page 191)
MC-81
IC001~007
MAIN CONTROL
EXT VD, EXT O/E
SO,SCK
FUNC 1,2,3
CSO, CSI, DSR DST
PAUSE OUT
P IN/OUT ADJ
VIDEO, AUDIO
CONTROL SIG
TS DATA
MSI, MSO, SCK
L CH, R CH
J602
CONTROLLER IN
CSO,CSI,DSR,DST
CC-34
(See Page 221)
FB-170 (See Page 222)
MAIN CONTROL FUNCTION KEY & DISPLAY
PLAYER FUNCTION KEY & DISPLAY
SLOW TRACKING ADJ
FUNC2,3
MSO,SCK
SLOW TRACON
STIL ADJ
STILL ADJ
A,B STILL ADJ
SA-30
(See Page 221)
POWER SW
RECODER FUNCTION KEY & DISPLAY
REC CORE
PB CORE
(See Page 228)
J201
HEADPHONES
LCH, RCH
HEADPHONE AMP
HE-3
FB-171
(See Page 227)
J501
PAUSE OUT
CO-6
(See Page 194)
RV201, 202
PAUSE IN/OUT ADJ
P IN/OUT ADJ
CO-5
(See Page 194)
CN402
TITLE KEYBOARD
TC-16
(See Page 194)
J301
MIC
MIC SIG
MIC AMP
MJ-26
(See Page 212)


FR-43 (See Page 90)
RP-73 (LP)
RP-103 (SP) REC/PB AMP
(See Page 91)
VIDEO HEAD
SP 1CH
SP 2CH
LP 1CH
LP 2CH
FLYING ERASE
FLYING ERASE OSC
FE ON
REC Y
PB V RF
SP/LP PB RF
REC PCM
PB PCM
REC ATF RF
SE-10P (See Page 137, 143)
IC106
FG, PG PROCESS
DFG
DPG
CFG
PFG
PG
IC101
DRUM SERVO
CAPSTAN SERVO
IC103
ANALOG DRUM SERVO
D SP DA
D PH DA
DC DA
C SP DA
C PH DA
IC104
25Hz NOTCH FILTER
SLOW, STEP, X-3 FH COMPENSAT
IC107
CAPSTAN ERROR AMP
CAPSTAN BIAS SELECT
IC108
CUE/REV CAPSTAN SPEED CORRECTION
REF V
RFCT
D0-D4
IC201
ATF SERVO
PB ATF
ATF ERROR
IC602
JOG HEAD CHANGE DET
RP SW P
SP/LP V REC
SP/LP P REC
HC HG
VI SW P
IC601
4 HEAD LOGIC
IC003
MECHANISM CONTROL 2 (ATF)
SEL1, SEL2, TSA, TSB
CASSETTET COMPARTMENT UP, CASSETTET COMPARTMENT DOWN
CASSETTE DOWN, CASSETTE IN
REEL FWD/RVS
REEL BIAS
CONT CW, CONT CCW
M SW A, B, C
LOAD, UNLOAD
L SW A, B, C
START, HOLD
SERVO CONTROL SIGNALS
INT
EXT
IC601
PCM INDEX CONTROL
(See Page 161)
IC603 BUS SELECT
PA-27, PD-19
PCM PROCESS
PB PCM
REC PCM
L CH, R CH IN
L CH, R CH OUT
MIX
REC ATF
SI, SO, SCK
IC007 BUS SWITCH
IC002
MECHANISM CONTROL
VIDEO CONTROL SIGNALS
PCM CONTROL SIGNALS
REEL FWD/RVS
IC004
REEL CONTROL
REEL 0-7
D-A CONV
REEL BIAS
SFG, TFG 1, TFG 2
IC001
MODE CONTROL
POWER ON
FUNC KEY 1,2,3
STILL ADJ
SLOW TRACON
MSO, SCK
POWER CONT
FUNCTION KEY
FUNC KEY 1, 2,
MSI, MSO, SCK
RV701, 702
REC LEVEL ADJ
RL-23
(See Page 212)
MD-23P (See Page 143)
IC807
WAVE SHAPER
IC801
DRUM MOTOR DRIVE
M901 DRUM MOTOR
DRUM FG, PG
IC802
CAPSTAN MOTOR DRIVE
M903 CAPSTAN MOTOR
CAPSTAN FG
IC806
CASSETTET COMPARTMENT MOTOR DRIVE
M904 CASSETTE COMPARTMENT MOTOR
S901 CASSETTE COMPARTMENT
S903 CASSETTE LOCK
IC805
TAPE END DETECT
IC901-904
REEL SERVO
M902 REEL MOTOR
(See Page 143)
TS-74(L)
Q715 TAPE END SENSOR
TS-74(R)
Q715 TAPE TOP SENSOR
(See Page 143)
LD-1
D001 TAPE LED
(See Page 149)
RS-31
REG 5V
IC301
CONTROL MOTOR DRIVE
M905 CONTROL MOTOR
MODE SWITCH
IC302
LOADING MOTOR DRIVE
M906 LOADING MOTOR
LOADING SWITCH
SOLENOID DRIVE
BRAKE SOLENOID
S904 ME/MP
REC PROOF
TFG, SFG SENSOR
(See Page 149)
IG-14
DRIVE 9V
REG 9V
REG -9V
REG 5V
DIGITAL 5V
UNSW 5V
(See Page 223)
POWER BLOCK
POWER ON
SWITCHING REGULATOR
AC IN
(See Page 231)

## 3-3. REC/PB HEAD AMP BLOCK DIAGRAM


VIDEO HEAD CH-1(SP)
VIDEO HEAD CH-2(SP)
SERVO (SE-10P)
CHECK PIN
001-2
001-6
002-21
003-4
SP CH-1(X)
SP CH-2(X)
L:SP CH SHORT
Q002
Q001
Q005
0.8Vp-p
2V
TP001 REC
TP001
AFM/PCM AUDIO (MB-19P)
SYSTEM CONTROL (SE-10P)
FLYING ERASE HEAD
002-24
002-23
001-18
004-2
L:FE ON
L:MP/H:ME
FE(X)
Q041
FE OSC
Q042
FE CURRENT OUTPUT
Q403
TP041
002-25
003-1
002-15
002-17
003-3
002-18
003-6
002-19
003-2
002-20
003-8
002-13
002-14
RAMP
RP RF SWP
SP PCM REC
LP VIDEO REC
SP VIDEO REC
RP PB MODE
RP AF REC
H CHG
Q008,009
RAMP GENERATOR
REG+5V
RV004 CH-1 PB FREQ RESPONSE
Q003
DUMPING
CH-1 HEAD AMP
CH-2 HEAD AMP
2ND AMP
Q002
RV003 CH-2 PB FREQ RESPONSE
IC001(1/3)
CH-1 VIDEO
CH-2
CH-1 PCM
CH-2
AMP BUFF
6dB ATT
AMP
IC001(3/3)
CH-1 REC AMP
CH-2 REC AMP
V→I CONV
IC001(2/3)
BUFF
VIDEO AMP
PCM AMP
RV002 REC PCM LEVEL
SP VIDEO REC
RP PB MODE
RP AF REC
(See Page 92)
RP-103(SP)BOARD
SP PB RF
PB PCM RF
SP CH-1
SP CH-2
002-1
002-11
004-3
004-4
AFM/PCM AUDIO (MB-19P)
CHECK PIN
HCHG
IC051
TP051
IC052
RV1
RV2
REC VI
RF SWP
REC VIDEO RF
002-3
CHROMA PROCESS (HK-5)
REC PCM RF
002-9
PB VIDEO RF
SERVO (SE-10P)
1.3Vp-p
2V
TP031 PB
PB AFM CAR
AFM/PCM AUDIO (MB-19P)
Q031,032
PB Y AMP
TP031
PB Y
002-5
004-7
PB VIDEO RF
Y PROCESS (HK-5)
LP PB RF
002-7
H CHG
LP CH-1
LP CH-2
004-5
004-6
CHECK PIN
VIDEO HEAD CH-1(LP)
VIDEO HEAD CH-2(LP)
001-8
001-12
LP CH-1(X)
LP CH-2(X)
Q004
Q006
Q003
002-22
003-5
L:LP CH SHORT
4.4Vp-p
2V
RP-73 ⑥ REC/PB
TP002
RV001 REC VIDEO LEVEL
V VOL
Q007
002-16
003-7
LP PCM REC
LP VIDEO REC
RP PB MODE
RP AF REC
(See Page 91)
RP-73(LP)BOARD
(See Page 90)
FR-43 BOARD
EVO-9700P

## 3-4. Y PROCESS BLOCK DIAGRAM

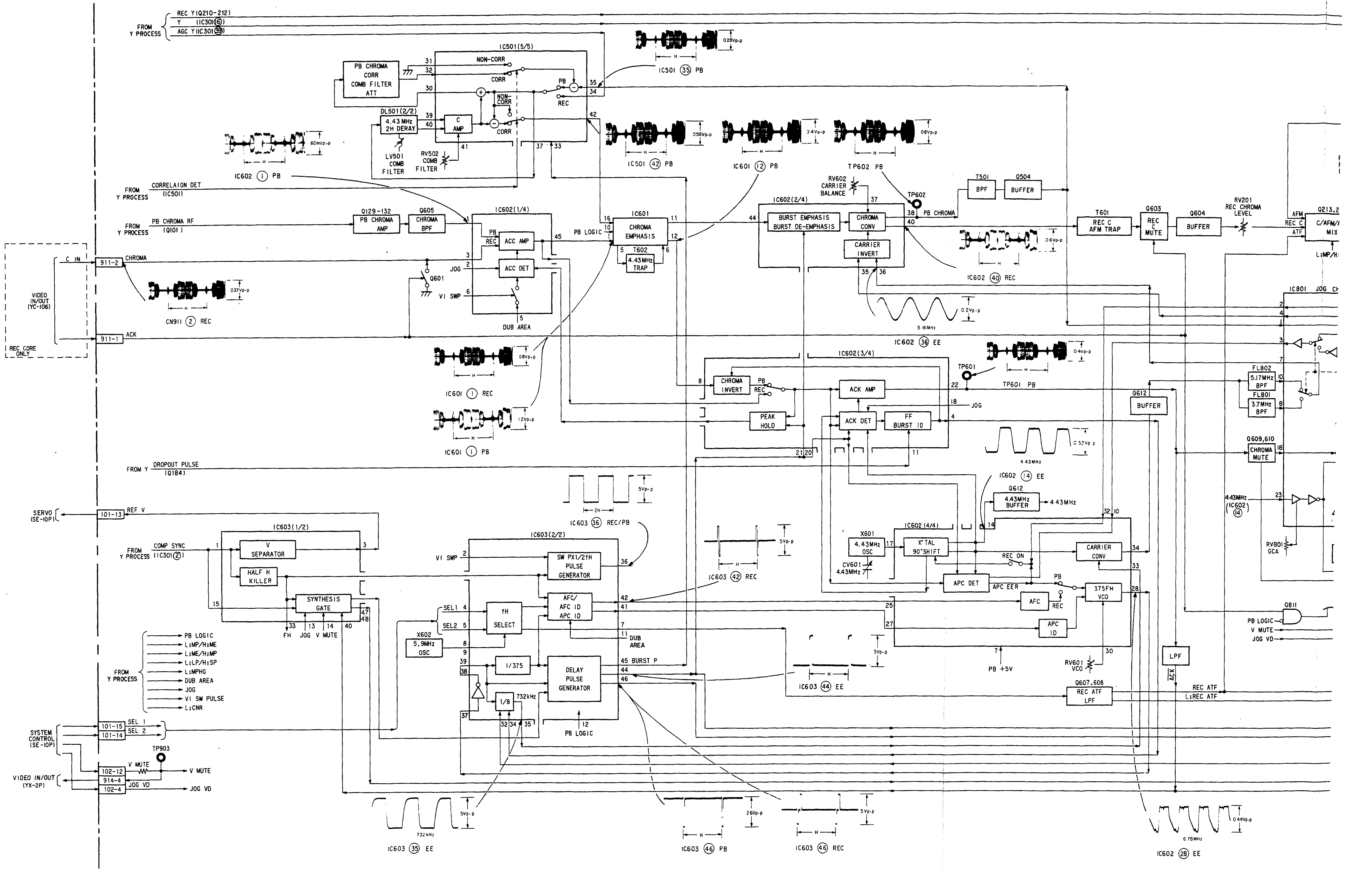

SYSTEM CONTROL (SE-10P)
101-9
912-5
101-8
912-3
L:MP/H:ME
L:ME/H:MP
H:HK
IC902(1/2)
INVERTER
L;MP/H;ME
L;ME/H;MP
TO C PROCESS
L:HK
H:HK
H:HJ
L:HJ
VIDEO IN/OUT (YX-2P)
912-4
101-11
101-10
912-6
L:SP/H:LP
L:LP/H:SP
MPHG
L:EDIT
IC901
INVERTER
L;SP/H;LP
L;LP/H;SP
L;MPHG
H;MPHG
H;EDIT
L;EDIT
L;LP/H;SP
L;MPHG
TO C PROCESS
VIDEO IN/OUT (YC-106)
REC CORE ONLY
911-4
Y
0.5Vp-p
PB+5V
DIFFER ENTIAL
Q330
CN911 ④ REC
FROM C PROCESS
AGC PULSE
SYSTEM CONTROL (SE-10P)
102-10
AGC FAST
FROM C PROCESS
EE TRAP
1.5Vp-p
CN102 ⑰ PB
REC/PB HEAD AMP (FR-43)
102-17
102-12
PB VIDEO RF
L:AFM STEREO
1.7MHz TRAP on/off
T101
Q101,125-128
AFM/ATF TRAP
L:CNR
Q102,104,105,124
EQ CHARACTOR SWITCH
L;HK
H;HJ
EQ AMP
Q103,722,723
IC101
RF AGC
JOG
Q122
Q123
D102
MP HG
H;HK
L;MP/H;ME
D10
Q110-114
INPUT LEVEL ATT
H;HJ
H;MPHG
H;HK
IC102,Q121
LIMITER RF AMP
Q132
FEED BACK
IC702(1/2) Q721,DL700
LIMITER
IC702(2/2),Q720
LIMITER
Q117
BUFFER
IC703
Q119
BUFFER
DOP (Q184)
Q116,118,120
NORMAL EQ
TO (C PROCESS)
PB CHROMA RF
FROM (C PROCESS)
BURST PULSE
(IC603 ㊹)
Q107
PB RF BUFFER
Q181~184
DROPOUT DETECT
RV101 DOC LEVEL
HK
DOP IC301 ㊽ PB
0.36Vp-p
TP102 PB
PB+5V
L:HK
Q318
Q124 TP102
L;HJ
IC301(1/4)
RF AGC
FM DEMOD
FL301,Q301
DEMOD LPF
Q302
BUFF
HJ
0.4Vp-p
0.9Vp-p
IC301 ⑫ PB
SERVO (SE-10P)
102-15
PB RF AGC
Q420,421
L;HJ
H;HJ
V REC
STD/HI8 MAIN EMPHASIS TIME CONST SW
V REC
Q415-417
SUBEMPH TIME CONST. SW
IC401(1/2)
CLAMP
REC
PB
PB LOGIC
Q413
V REC
PRE-EMPHASIS
WHITE/DARK CLIP
STD/HI8 SW
Q411
Q412
H;HK
H;HJ
Q403-410,424
STD/HI8 MODE FM DEVIATION
VI SW P
RV401:HI8 MODE CARRIER
RV402:STD MODE CARRIER
RV403:STD MODE DEVIATION
RV404:HI8 MODE DEVIATION
HK
HK
IC401(2/2)
FM MOD
PB LOGIC
TP401
H 0.1μsec/DIV
V 50mV/DIV
TP401 REC
Q701
REC Y BUFFER
Q710~712
CHROMA 1/2TRAP
H;HJ
MPHG
Q704
BUFFER
Q702,703
AFM 1/2TRAP
L;ME/H;MP
L;MP/H;ME
Q706
BUFFER
Q209
REQ EQ
H;HJ
HI8
STD
Q210-212
REC Y
TO C PROCESS
Q418,419
INVERT AMP
L;HK
Q426
REC MUTE
V REC
2.4Vp-p
5Vp-p
IC301 ⑤ PB
IC301 ⑤ REC
IC301(3/4)
AGC AMP
AGC DET
REC
PB
CLAMP VD ADD
OUTPUT AMP
RV301 VIDEO OUTPUT LEVEL
TP303
TP303 PB
TO C PROCESS
RV302 SYNC AGC
Q319,320
AGC FAST DET
TP301
AGC Y
TO C PROCESS
TP301 REC
+5V
RV304 STD MODE PB LEVEL
RV305 HI8 MODE PB LEVEL
+5V
H;HK
Q324
RV303 NORMAL MODE MAIN DE-EMPHASIS
IC301(2/4)
Q305,306
NORMAL MODE EQ
L;HJ Q307,325
NORMAL
HI8
Q312,313
PEAKING FREQUENCY SW
L;HK Q314,326
HI8 MODE EQ
Q309,310
Q311,328
Q389
Q315
PBY BUFFER
HI8 MAIN DE-EMPHASIS
H;HK
Q316
Q317
PBY BUFFER
MAIN DE-EMPHASIS
PB LEVEL
PB
REC
SUB DE-EMPHASIS
Q322,323
STD TIME CONSTANT
Q321
VI SWP
V REC
H;HJ
L;HK
PB +5V
0.4Vp-p
IC301 ㊵ PB
DROPOUT PULSE
TO C PROCESS
0.6Vp-p
1Vp-p
0.58Vp-p
IC501 ㊹ PB
IC501 ⑱ EE
TP402 EE
IC301 ② EE
AFM/PCM AUDIO (MB-19P)
VIDEO IN/OUT (YX-2P)
101-17
101-16
102-11
102-14
912-7
HD INSERT
DUB AREA
JOG
VI SW PULSE
L;CNR/ME TRAP
DUB AREA
JOG
VI SW PULSE
L;CNR
TO C PROCESS
5Vp-p
2V
CN102 ⑭ REC/PB
TO C PROCESS
CORRELATION DET
IC501(1/5)
AM MOD
X501
13.3MHz OSC
DL501(1/2)
1H DELAY
(13.3MHz)
RV501 COMB AGC
IC501(2/5)
AM DET
AGC DET
IC501(3/5)
YD CLAMP
Y CLAMP
HD INSERT
DO
NDR
COLOR
COLOR, B/W SW
REC/PB SW
PB
REC
CORRELATION DET
LIMITER
TP501
Q431
FL401
250nSEC DELAY
Q401
DELAY EQ
Q427
Q402,422,423
REC PB Y BUFF
RV405 LOOP GAIN
TP402
H J
PB LOGIC
Q429,430
IC301(4/4)
SYNC SEPARATOR
COMP SYNC
COMP SYNC
TO C
102-13
SERVO (SE-10P)
AFM/PCM AUDIO (MB-19P)
2Vp-p
CN102 ⑬ EE
101-18
DCD
0.6Vp-p
IC501 ② PB
0.6Vp-p
TP302 PB
Q502,D501
Y COMB CHARACTOR SW
H;EDIT
L;SP/H;LP
Q501,503
DUB AREA /EDIT SW
DUB AREA
L;EDIT
TP302
Q414,425
REC MUTE
V REC
IC501(4/5)
PB LOGIC
SYSTEM CONTROL (SE-10P)
Q903,904
REG+5V
PB +5V REG
PB+5V
PB+5V TO C PROCESS
102-9
914-1
V PB MODE
PB LOGIC
Q901,902
PB MODE CONTROL
V REC
PB LOGIC
PB LOGIC TO C PROCESS

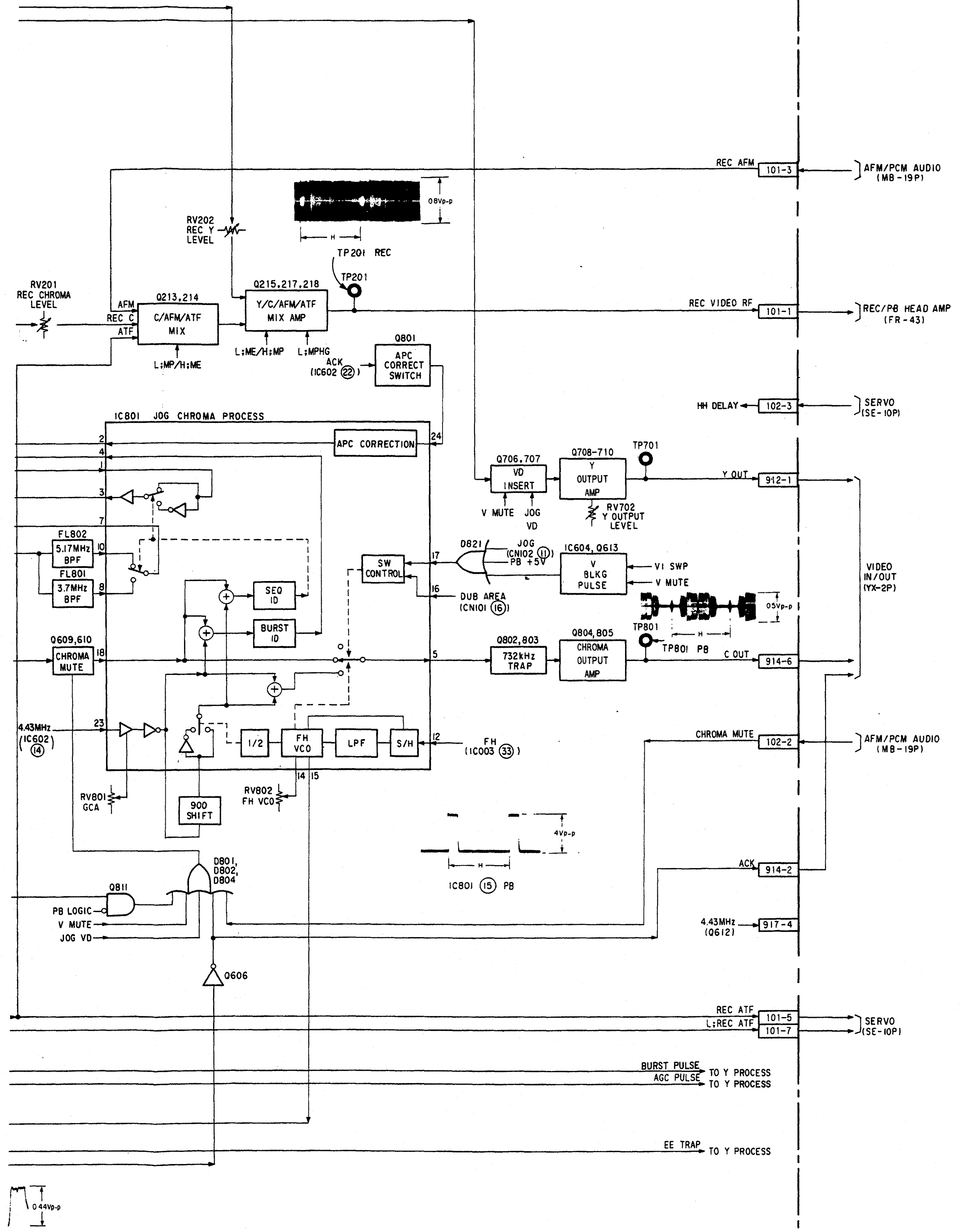
**(See Page 103, 108, 121)**

**HK-5** BOARD (1/2)

EVO-9700P

## 3-5. CHROMA PROCESS BLOCK DIAGRAM

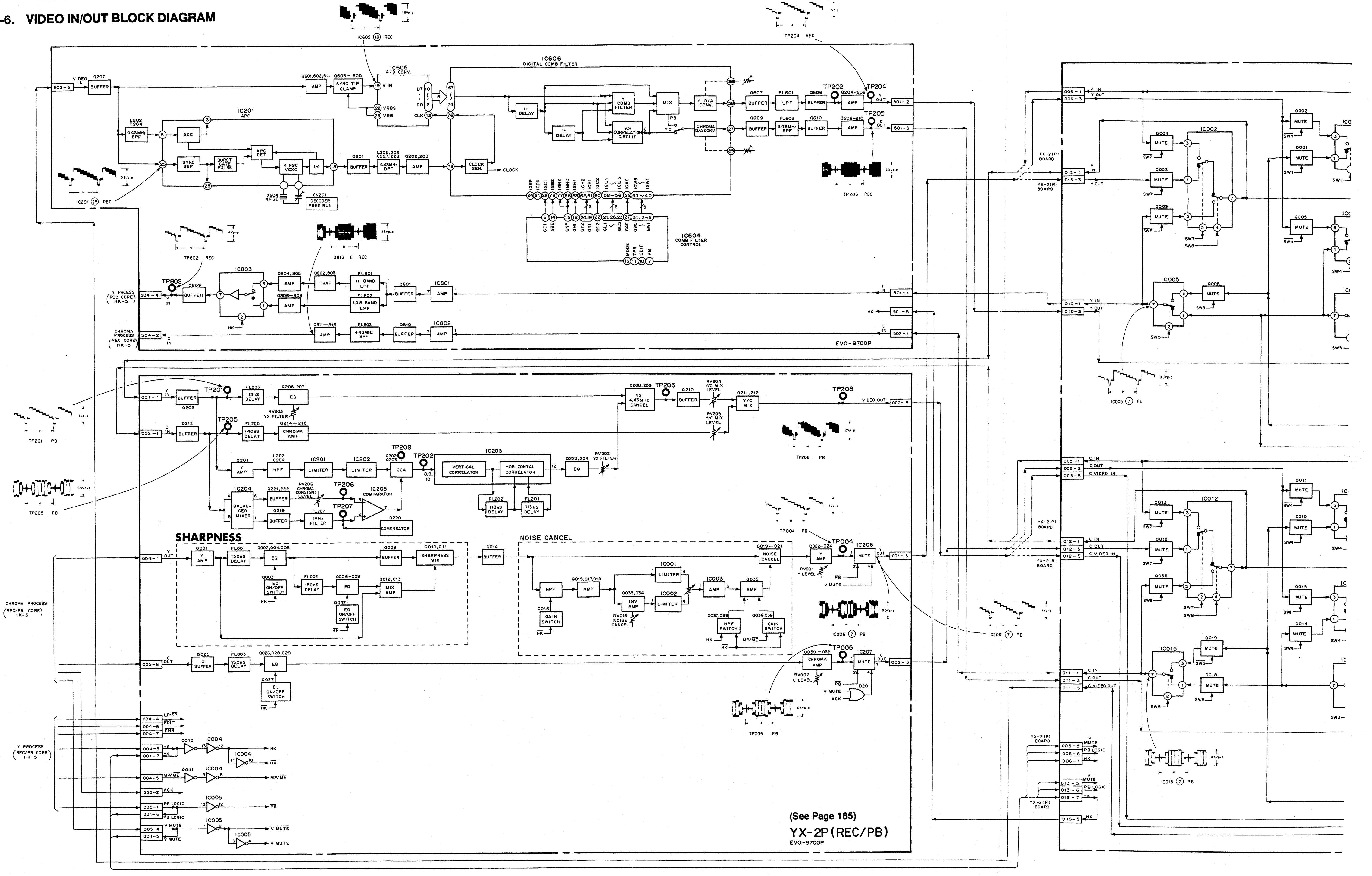

FROM Y PROCESS
REC Y (Q210-212)
Y (IC301⑯)
AGC Y (IC301㊴)
IC501(5/5)
PB CHROMA CORR COMB FILTER ATT
NON-CORR
CORR
PB
REC
NON-CORR
CORR
DL501(2/2)
4.43MHz 2H DERAY
C AMP
LV501 COMB FILTER
RV502 COMB FILTER
31
32
30
39
40
41
37
33
35
34
42
60mVp-p
H
IC602 ① PB
FROM Y PROCESS
CORRELAION DET (IC501)
FROM Y PROCESS
PB CHROMA RF (Q101)
Q129-132
PB CHROMA AMP
Q605
CHROMA BPF
IC602(1/4)
PB
REC
ACC AMP
ACC DET
45
JOG
V1 SWP
Q601
DUB AREA
VIDEO IN/OUT (YC-106)
C IN
REC CORE ONLY
911-2
CHROMA
911-1
ACK
0.37Vp-p
CN911 ② REC
0.8Vp-p
IC601 ① REC
1.2Vp-p
IC601 ① PB
0.28Vp-p
IC501 ㉟ PB
0.56Vp-p
IC501 ㊷ PB
0.4Vp-p
IC601 ⑫ PB
0.8Vp-p
TP602 PB
PB LOGIC
IC601
CHROMA EMPHASIS
T602
4.43MHz TRAP
16
10
11
12
5
6
RV602 CARRIER BALANCE
IC602(2/4)
BURST EMPHASIS
BURST DE-EMPHASIS
CHROMA CONV
CARRIER INVERT
44
37
38
40
35
36
TP602
PB CHROMA
T501
BPF
Q504
BUFFER
0.6Vp-p
IC602 ㊵ REC
0.2Vp-p
5.16MHz
IC602 ㊱ EE
T601
REC C AFM TRAP
Q603
REC C MUTE
Q604
BUFFER
RV201 REC CHROMA LEVEL
AFM
REC C
ATF
Q213,2
C/AFM/
MIX
L:MP/H:
IC801 JOG CH
FL802
5.17MHz BPF
FL801
3.7MHz BPF
Q612
BUFFER
Q609,610
CHROMA MUTE
4.43MHz (IC602 ⑭)
RV801 GCA
IC602(3/4)
CHROMA INVERT
PB
REC
PEAK HOLD
ACK AMP
ACK DET
FF BURST ID
TP601
TP601 PB
0.4Vp-p
22
18
JOG
4
8
21
20
11
0.52Vp-p
4.43MHz
IC602 ⑭ EE
Q612
4.43MHz BUFFER
4.43MHz
FROM Y DROPOUT PULSE (Q184)
5Vp-p
2H
IC603 ㊱ REC/PB
SERVO (SE-10P)
101-13
REF V
IC603(1/2)
FROM Y PROCESS
COMP SYNC (IC301②)
V SEPARATOR
HALF H KILLER
SYNTHESIS GATE
FH
JOG
V MUTE
33
13
14
40
47
48
15
1
3
IC603(2/2)
V1 SWP
SW PX1/21H PULSE GENERATOR
AFC/ AFC ID APC ID
fH SELECT
SEL1
SEL2
X602
5.9MHz OSC
1/375
1/8
732kHz
DELAY PULSE GENERATOR
36
42
41
7
11 DUB AREA
45 BURST P
44
46
12
PB LOGIC
FROM Y PROCESS
PB LOGIC
L:MP/H:ME
L:ME/H:MP
L:LP/H:SP
L:MPHG
DUB AREA
JOG
V1 SW PULSE
L:CNR
SYSTEM CONTROL (SE-10P)
101-15
101-14
SEL 1
SEL 2
TP903
VIDEO IN/OUT (YX-2P)
102-12
914-4
102-4
V MUTE
JOG VD
V MUTE
JOG VD
5Vp-p
732kHz
IC603 ㉟ EE
5Vp-p
H
IC603 ㊷ REC
5Vp-p
IC603 ㊹ EE
2.6Vp-p
IC603 ㊻ PB
5Vp-p
IC603 ㊻ REC
X601
4.43MHz OSC
CV601 4.43MHz
IC602(4/4)
X'TAL 90°SHIFT
REC ON
APC DET
APC EER
AFC
REC
PB
375FH VCO
APC ID
CARRIER CONV
17
14
32
10
34
33
28
25
27
30
7
PB +5V
RV601 VCO
Q607,608
REC ATF LPF
REC ATF
L:REC ATF
LPF
ACK
Q811
PB LOGIC
V MUTE
JOG VD
0.44Vp-p
6.78MHz
IC602 ㉘ EE

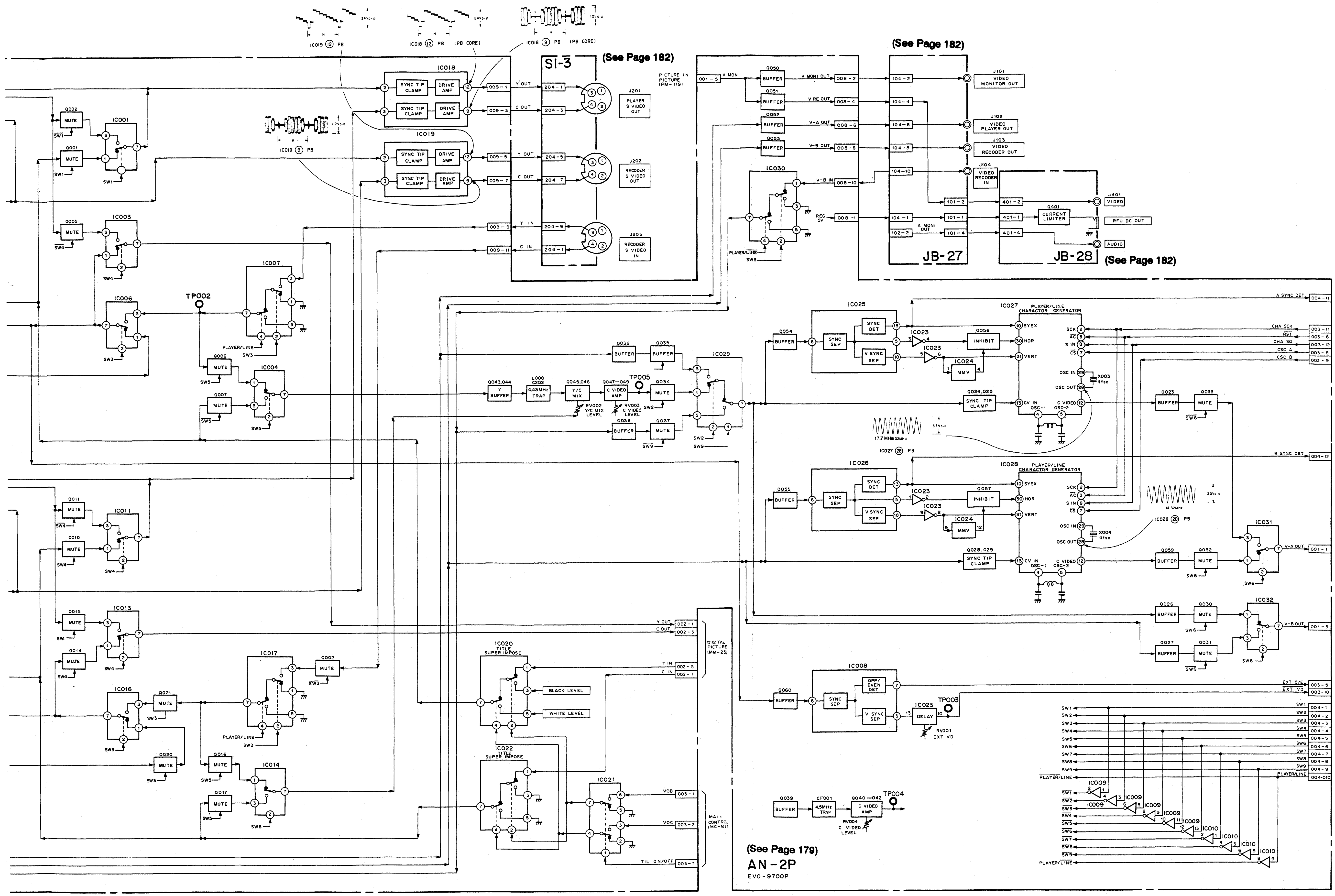

RV202
REC Y
LEVEL
0.8Vp-p
H
TP201 REC
TP201
RV201
REC CHROMA
LEVEL
AFM
REC C
ATF
Q213,214
C/AFM/ATF
MIX
L;MP/H;ME
Q215,217,218
Y/C/AFM/ATF
MIX AMP
L;ME/H;MP
L;MPHG
ACK
(IC602 ㉒)
Q801
APC
CORRECT
SWITCH
REC AFM
101-3
AFM/PCM AUDIO
(MB-19P)
REC VIDEO RF
101-1
REC/PB HEAD AMP
(FR-43)
HH DELAY
102-3
SERVO
(SE-10P)
IC801 JOG CHROMA PROCESS
APC CORRECTION
2
4
1
3
7
10
8
18
23
24
17
16
5
12
14
15
FL802
5.17MHz
BPF
FL801
3.7MHz
BPF
SEQ
ID
BURST
ID
SW
CONTROL
Q609,610
CHROMA
MUTE
4.43MHz
(IC602 ⑭)
1/2
FH
VCO
LPF
S/H
FH
(IC003 ㉝)
RV801
GCA
900
SHIFT
RV802
FH VCO
Q706,707
VD
INSERT
V MUTE
JOG
VD
Q708-710
Y
OUTPUT
AMP
RV702
Y OUTPUT
LEVEL
TP701
Y OUT
912-1
D821
JOG
(CN102 ⑪)
PB +5V
DUB AREA
(CN101 ⑯)
IC604, Q613
V
BLKG
PULSE
V1 SWP
V MUTE
0.5Vp-p
H
TP801
TP801 PB
Q802,803
732kHz
TRAP
Q804,805
CHROMA
OUTPUT
AMP
C OUT
914-6
VIDEO
IN/OUT
(YX-2P)
CHROMA MUTE
102-2
AFM/PCM AUDIO
(MB-19P)
4Vp-p
H
IC801 ⑮ PB
D801,
D802,
D804
Q811
PB LOGIC
V MUTE
JOG VD
Q606
ACK
914-2
4.43MHz
(Q612)
917-4
REC ATF
L;REC ATF
101-5
101-7
SERVO
(SE-10P)
BURST PULSE
AGC PULSE
TO Y PROCESS
TO Y PROCESS
EE TRAP
TO Y PROCESS
0.44Vp-p

**(See Page 103, 108, 121)**

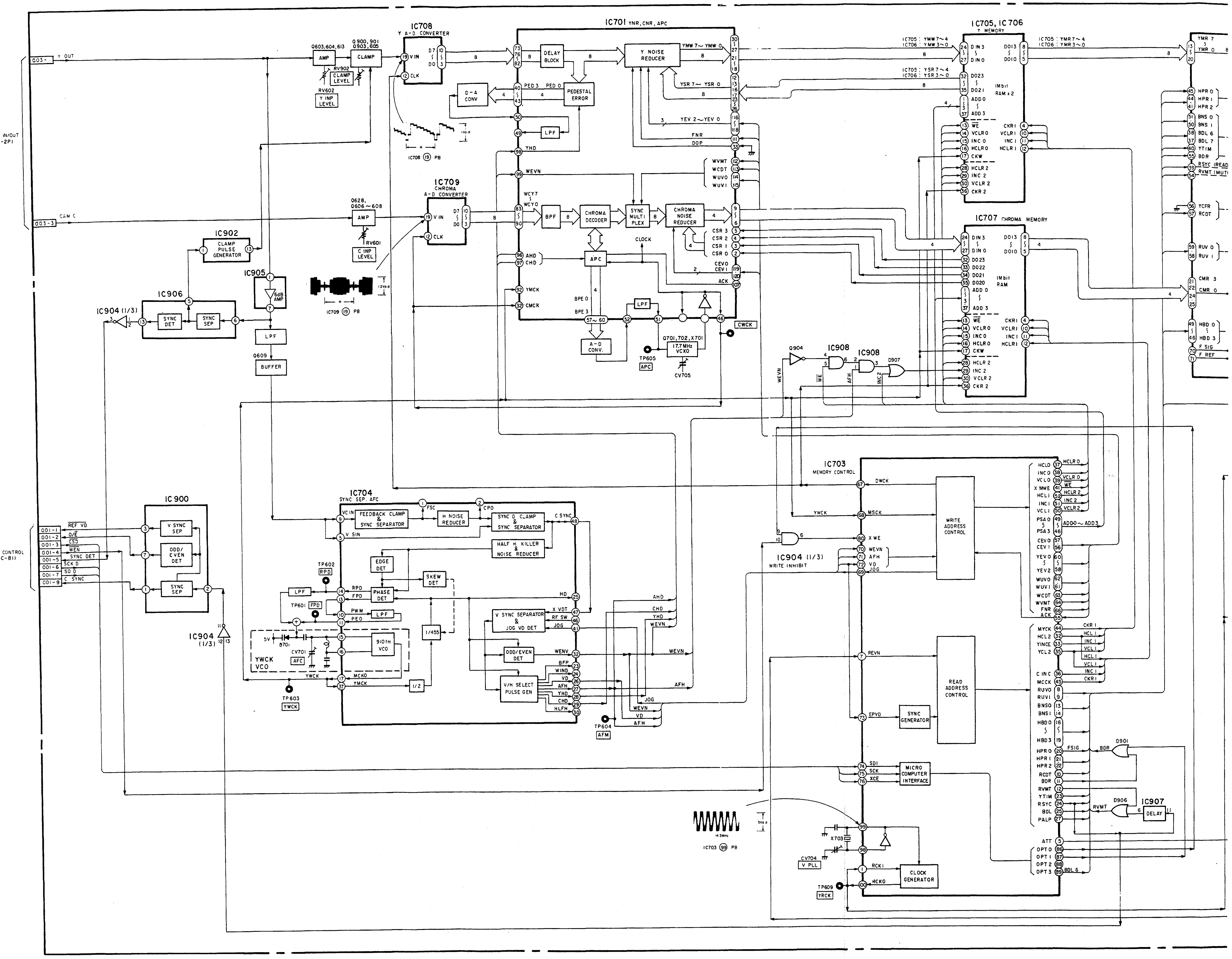
**HK-5** BOARD (2/2)
EVO-9700P

## 3-6. VIDEO IN/OUT BLOCK DIAGRAM

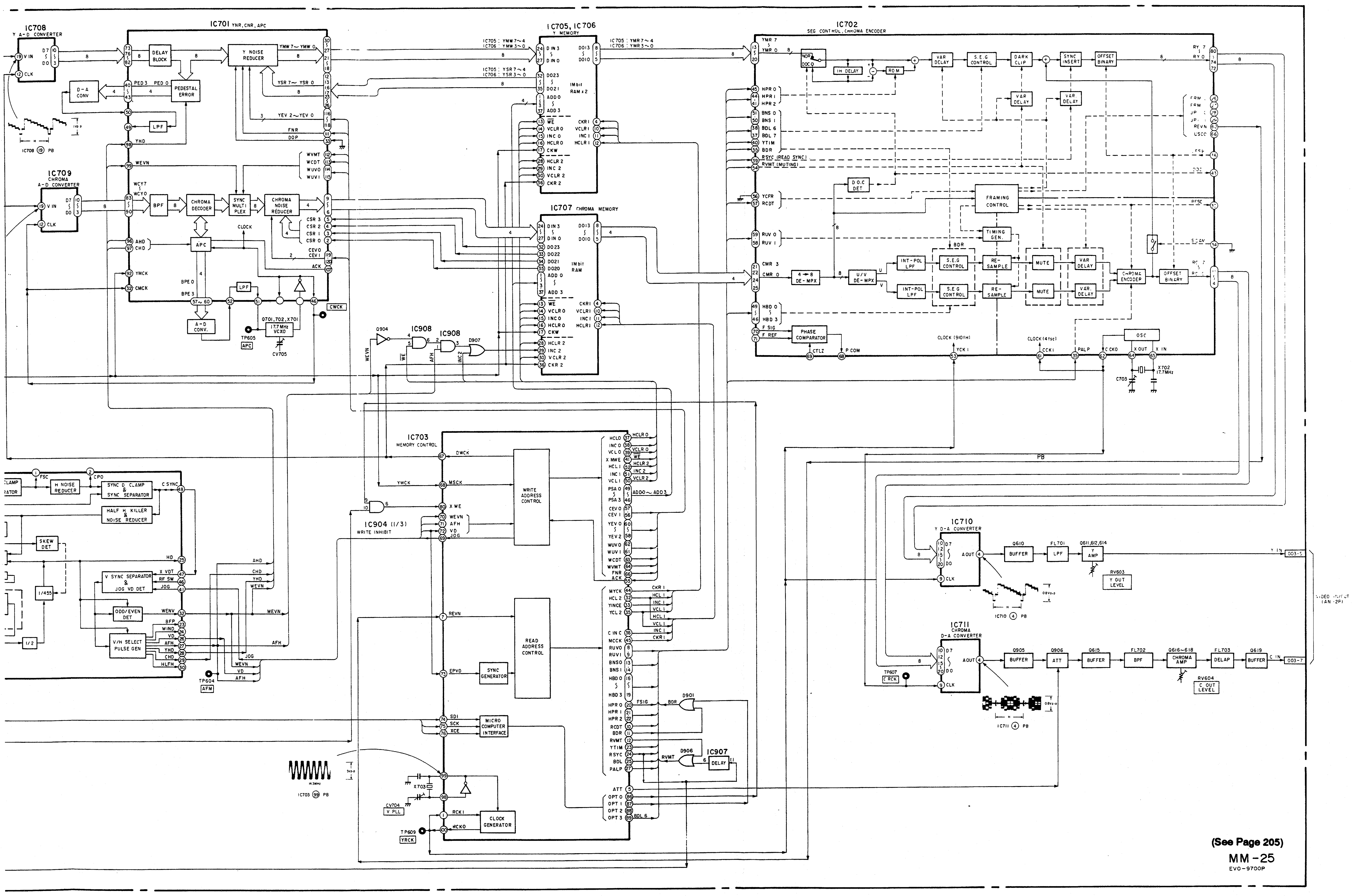

IC605 ⑲ REC
TP204 REC
IC606
DIGITAL COMB FILTER
IC605
A/D CONV.
VIDEO IN
Q207
BUFFER
502-5
Q601,602,611
AMP
Q603-605
SYNC TIP CLAMP
V IN
VRBS
VRB
CLK
1H DELAY
Y COMB FILTER
V.H CORRELATION CIRCUIT
MIX
Y D/A CONV.
CHROMA D/A CONV.
PB
Q607
BUFFER
FL601
LPF
Q606
BUFFER
TP202
Q204-206
AMP
TP204
Y OUT
501-2
Q609
FL603
4.43MHz BPF
Q610
Q208-210
TP205
C OUT
501-3
TP205 REC
IC201
APC
L202
C204
4.43MHz BPF
ACC
SYNC SEP
BURST GATE PULSE
APC DET
4 FSC VCXO
1/4
Q201
L205,206
C227,228
4.43MHz BPF
Q202,203
CLOCK GEN.
CLOCK
X204
4FSC
CV201
DECODER FREE RUN
IC201 ㉕ REC
IC604
COMB FILTER CONTROL
MODE
TPS
EDIT
PB
TP802 REC
Q813 E REC
TP802
Y PROCESS (REC CORE) HK-5
504-4
Y IN
Q809
BUFFER
IC803
Q804,805
AMP
Q806-808
Q802,803
TRAP
FL801
HI BAND LPF
FL802
LOW BAND LPF
Q801
BUFFER
IC801
AMP
501-1
501-5
HK
CHROMA PROCESS (REC CORE) HK-5
504-2
C IN
Q811-813
FL803
4.43MHz BPF
Q810
IC802
502-1
EVO-9700P
YX-2(P) BOARD
YX-2(R) BOARD
006-1
006-3
013-1
013-3
010-1
010-3
MUTE
IC002
IC005
SW1
SW4
SW5
SW7
SW8
IC005 ⑦ PB
TP201 PB
TP205 PB
001-1
Y IN
Q205
BUFFER
TP201
FL203
113nS DELAY
Q206,207
EQ
RV203
YX FILTER
002-1
C IN
Q213
FL205
140nS DELAY
Q214-218
CHROMA AMP
Q208,209
TP203
YX 4.43MHz CANCEL
Q210
BUFFER
RV204
Y/C MIX LEVEL
RV205
Y/C MIX LEVEL
Q211,212
Y/C MIX
TP208
VIDEO OUT
002-5
TP208 PB
Q201
Y AMP
L202
C204
HPF
IC201
LIMITER
IC202
LIMITER
TP209
Q202
Q203
GCA
TP202
IC203
VERTICAL CORRELATOR
HORIZONTAL CORRELATOR
FL202
113nS DELAY
FL201
113nS DELAY
Q223,204
EQ
RV202
YX FILTER
IC204
BALANCED MIXER
Q221,222
BUFFER
Q219
BUFFER
RV206
CHROMA CONSTANT LEVEL
TP206
TP207
FL207
1MHz FILTER
IC205
COMPARATOR
Q220
COMENSATOR
SHARPNESS
004-1
Y OUT
Q001
Y AMP
FL001
150nS DELAY
Q002,004,005
EQ
Q003
EQ ON/OFF SWITCH
FL002
150nS DELAY
Q006-008
EQ
Q042
EQ ON/OFF SWITCH
Q009
BUFFER
Q010,011
SHARPNESS MIX
Q012,013
MIX AMP
Q014
BUFFER
NOISE CANCEL
HPF
Q016
GAIN SWITCH
Q015,017,018
AMP
IC001
LIMITER
IC002
LIMITER
Q033,034
INV AMP
RV013
NOISE CANCEL
IC003
AMP
Q035
AMP
Q037,038
HPF SWITCH
Q036,039
GAIN SWITCH
MP/ME
Q019-021
NOISE CANCEL
TP004 PB
TP004
Q022-024
Y AMP
RV001
Y LEVEL
IC206
MUTE
V MUTE
001-3
IC206 ⑦ PB
005-6
C OUT
Q025
C BUFFER
FL003
150nS DELAY
Q026,028,029
EQ
Q027
EQ ON/OFF SWITCH
Q030-032
CHROMA AMP
TP005
RV002
C LEVEL
IC207
MUTE
Q201
ACK
002-3
TP005 PB
CHROMA PROCESS (REC/PB CORE) HK-5
Y PROCESS (REC/PB CORE) HK-5
004-4
LP/SP
004-6
EDIT
004-7
CNR
004-3
001-7
Q040
IC004
004-5
MP/ME
Q041
005-2
ACK
005-1
001-6
PB LOGIC
IC005
005-4
001-5
V MUTE
005-1
005-3
005-5
C IN
C OUT
C VIDEO IN
012-1
012-3
012-5
011-1
011-3
011-5
C VIDEO OUT
IC012
IC015
006-5
006-6
006-7
013-5
013-6
013-7
010-5
IC015 ⑦ PB
(See Page 165)
YX-2P (REC/PB)
EVO-9700P


IC019 ⑫ PB
IC018 ⑫ PB (PB CORE)
IC018 ⑨ PB (PB CORE)
IC019 ⑨ PB
24Vp-p
12Vp-p
SI-3
(See Page 182)
IC018
SYNC TIP CLAMP
DRIVE AMP
IC019
Y OUT
C OUT
Y IN
C IN
009-1
009-3
009-5
009-7
009-9
009-11
204-1
204-3
204-5
204-7
204-9
J201 PLAYER S VIDEO OUT
J202 RECODER S VIDEO OUT
J203 RECODER S VIDEO IN
PICTURE IN PICTURE (PM-119)
001-5
V MONI
Q050
Q051
Q052
Q053
BUFFER
V MONI OUT
V RE OUT
V-A OUT
V-B OUT
V-B IN
REG 5V
008-2
008-4
008-6
008-8
008-10
008-1
104-2
104-4
104-6
104-8
104-10
104-1
102-2
101-2
101-1
101-4
A MONI OUT
J101 VIDEO MONITOR OUT
J102 VIDEO PLAYER OUT
J103 VIDEO RECODER OUT
J104 VIDEO RECODER IN
JB-27
JB-28
(See Page 182)
401-2
401-1
401-4
Q401 CURRENT LIMITER
J401 VIDEO
RFU DC OUT
AUDIO
IC030
PLAYER/LINE
SW3
Q002
Q001
MUTE
IC001
SW1
Q005
IC003
SW4
IC006
IC007
TP002
Q006
Q007
IC004
SW5
Q036
Q035
Q043,044 Y BUFFER
L008 C202 4.43MHz TRAP
Q045,046 Y/C MIX
Q047-049 C VIDEO AMP
TP005
Q034
RV002 Y/C MIX LEVEL
RV003 C VIDEO LEVEL
Q038
Q037
SW2
SW9
IC029
IC025
SYNC SEP
SYNC DET
V SYNC SEP
Q054
IC023
Q056 INHIBIT
IC024 MMV
IC027 PLAYER/LINE CHARACTOR GENERATOR
SYEX
HOR
VERT
SCK
AC
S IN
CS
OSC IN
OSC OUT
X003 4fsc
Q024,025 SYNC TIP CLAMP
CV IN OSC-1
C VIDEO OSC-2
Q023
Q033
SW6
17.7 MHz 32MHz
3.5Vp-p
IC027 ㉘ PB
A SYNC DET
004-11
CHA SCK
RST
CHA SO
CSC A
CSC B
003-11
003-6
003-12
003-8
003-9
MAIN CONTROL (MC-81)
B SYNC DET
004-12
IC026
Q055
IC028 PLAYER/LINE CHARACTOR GENERATOR
Q057
X004 4fsc
14.32MHz
IC028 ㉘ PB
Q028,029 SYNC TIP CLAMP
Q059
Q032
IC031
V-A OUT
001-1
PICTURE IN PICTURE (PM-119)
Q026
Q030
IC032
V-B OUT
001-3
Q027
Q031
Q011
IC011
Q010
Q015
IC013
Q014
Q002
IC017
IC016
Q021
Q020
Q016
IC014
Q017
IC020 TITLE SUPER IMPOSE
BLACK LEVEL
WHITE LEVEL
IC022 TITLE SUPER IMPOSE
IC021
Y OUT
C OUT
Y IN
C IN
002-1
002-3
002-5
002-7
DIGITAL PICTURE (MM-25)
VOB
VOC
TIL ON/OFF
003-1
003-2
003-7
MAIN CONTROL (MC-81)
IC008
OPP/EVEN DET
Q060
DELAY
TP003
RV001 EXT VD
EXT O/E
EXT VD
003-5
003-10
SW1
SW2
SW3
SW4
SW5
SW6
SW7
SW8
SW9
PLAYER/LINE
004-1
004-2
004-3
004-4
004-5
004-6
004-7
004-8
004-9
004-010
IC009
IC010
Q039
CF001 4.5MHz TRAP
Q040-042 C VIDEO AMP
TP004
RV004 C VIDEO LEVEL
(See Page 179)
AN-2P
EVO-9700P

## 3-7. DIGITAL PICTURE BLOCK DIAGRAM



VIDEO IN/OUT (AN-2P)
MAIN CONTROL (MC-81)
IC708 Y A-D CONVERTER
IC709 CHROMA A-D CONVERTER
IC701 YNR, CNR, APC
DELAY BLOCK
Y NOISE REDUCER
PEDESTAL ERROR
D-A CONV
LPF
BPF
CHROMA DECODER
SYNC MULTI PLEX
CHROMA NOISE REDUCER
APC
A-D CONV.
Q701, 702, X701 17.7MHz VCXO
CV705
TP605 APC
CWCK
IC705, IC706 Y MEMORY
1Mbit RAM ×2
IC707 CHROMA MEMORY
1Mbit RAM
IC902 CLAMP PULSE GENERATOR
IC905 6dB AMP
IC906 SYNC DET SYNC SEP
IC904 (1/3)
LPF
Q609 BUFFER
AMP
CLAMP
RV902 CLAMP LEVEL
RV602 Y INP LEVEL
RV601 C INP LEVEL
IC708 ⑲ PB
IC709 ⑲ PB
IC900 V SYNC SEP ODD/EVEN DET SYNC SEP
REF VD
O/E
CSS
WEN
SYNC DET
SCK D
SO D
C SYNC
IC904 (1/3)
IC704 SYNC SEP, AFC
FEEDBACK CLAMP & SYNC SEPARATOR
H NOISE REDUCER
SYNC D CLAMP & SYNC SEPARATOR
HALF H KILLER & NOISE REDUCER
EDGE DET
SKEW DET
PHASE DET
1/455
V SYNC SEPARATOR & JOG VD DET
ODD/EVEN DET
V/H SELECT PULSE GEN
910fH VCO
YWCK VCO
CV701 AFC
TP601 FPD
TP602 RPD
TP603 YWCK
TP604 AFM
1/2
IC908
IC908
Q904
D907
IC703 MEMORY CONTROL
WRITE ADDRESS CONTROL
READ ADDRESS CONTROL
SYNC GENERATOR
MICRO COMPUTER INTERFACE
CLOCK GENERATOR
IC904 (1/3) WRITE INHIBIT
X703
CV704 V PLL
TP609 YRCK
IC703 ⑲ PB
D901
D906
IC907 DELAY

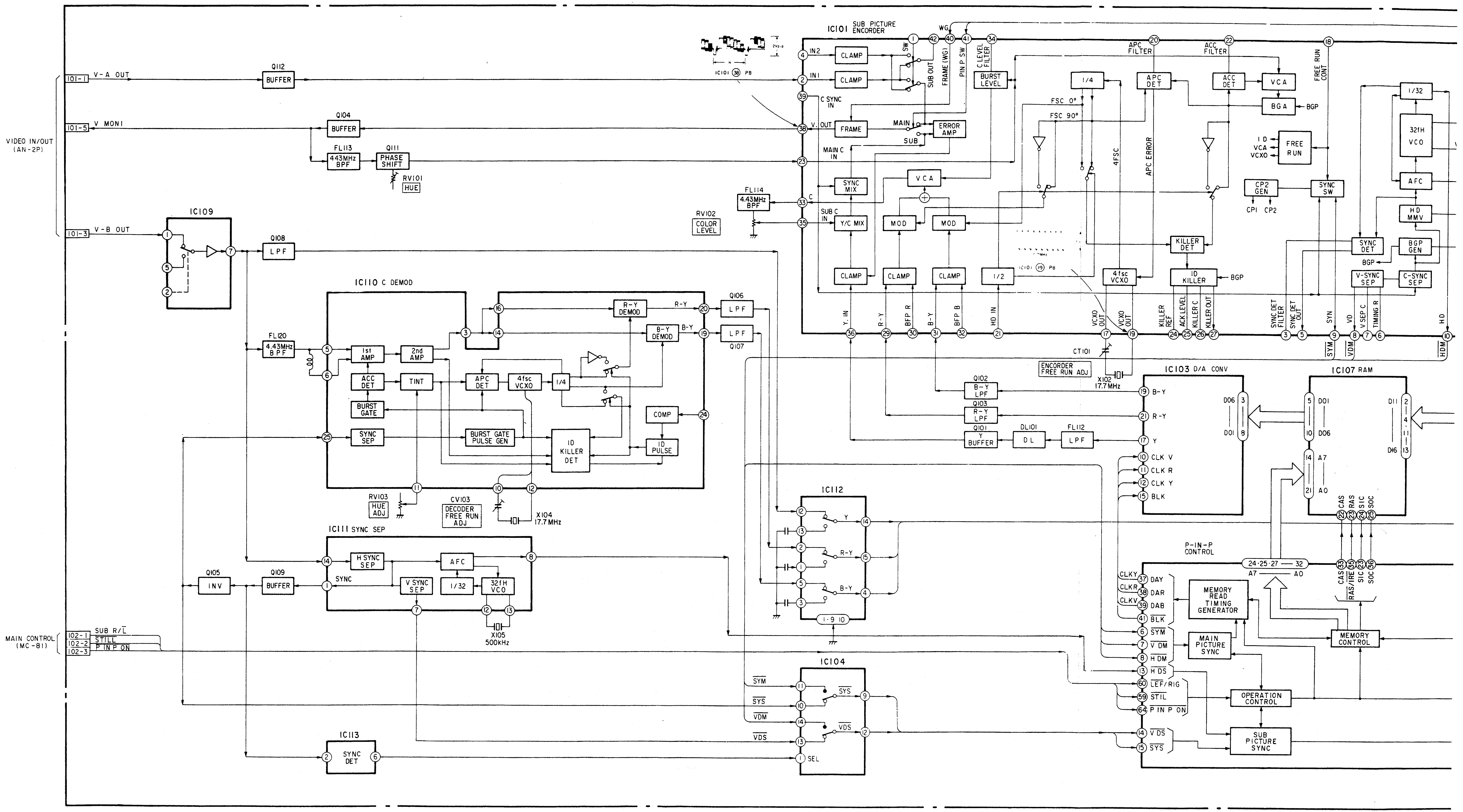

IC708
Y A-D CONVERTER
IC701 YNR, CNR, APC
DELAY BLOCK
Y NOISE REDUCER
PEDESTAL ERROR
D-A CONV
LPF
IC709
CHROMA A-D CONVERTER
BPF
CHROMA DECODER
SYNC MULTI PLEX
CHROMA NOISE REDUCER
APC
A-D CONV.
Q701,702,X701 17.7MHz VCXO
TP605 APC
CV705
IC705, IC706
Y MEMORY
1Mbit RAM x 2
IC707 CHROMA MEMORY
1Mbit RAM
IC702
SEG CONTROL, CHROMA ENCODER
1H DELAY
ROM
VAR DELAY
S.E.G CONTROL
DARK CLIP
SYNC INSERT
OFFSET BINARY
FRAMING CONTROL
TIMING GEN.
D.O.C DET
4→8 DE-MPX
U/V DE-MPX
INT-POL LPF
RE-SAMPLE
MUTE
CHROMA ENCODER
PHASE COMPARATOR
OSC
X702 17.7MHz
C703
IC908
IC904 (1/3) WRITE INHIBIT
IC703
MEMORY CONTROL
WRITE ADDRESS CONTROL
READ ADDRESS CONTROL
SYNC GENERATOR
MICRO COMPUTER INTERFACE
CLOCK GENERATOR
X703
CV704 V PLL
TP609 YRCK
TP604 AFM
IC907 DELAY
D901
D906
D907
Q904
SYNC D. CLAMP & SYNC SEPARATOR
H NOISE REDUCER
HALF H KILLER & NOISE REDUCER
SKEW DET
1/455
1/2
V SYNC SEPARATOR & JOG VD DET
ODD/EVEN DET
V/H SELECT PULSE GEN
IC710
Y D-A CONVERTER
Q610 BUFFER
FL701 LPF
Q611,612,614 Y AMP
RV603 Y OUT LEVEL
IC711
CHROMA D-A CONVERTER
Q905 BUFFER
Q906 ATT
Q615 BUFFER
FL702 BPF
Q616~618 CHROMA AMP
FL703 DELAP
Q619 BUFFER
RV604 C OUT LEVEL
TP607 CRCK
VIDEO OUTPUT (AN-2P)
IC708 (19) PB
IC703 (99) PB
IC710 (4) PB
IC711 (4) PB
PB
CLOCK (910fH)
CLOCK (4fsc)

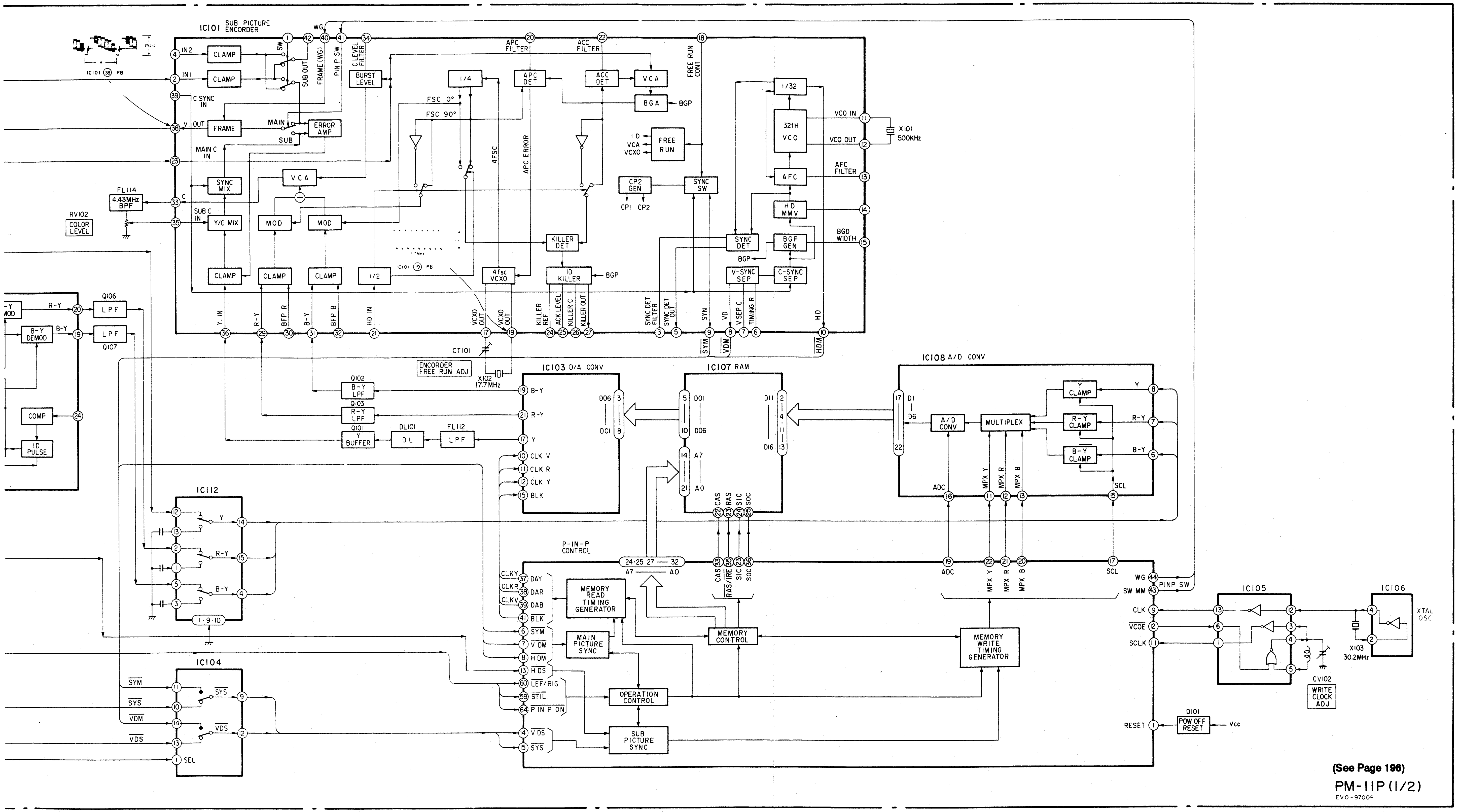
(See Page 205)

MM-25

EVO-9700P

## 3-8. PICTURE IN PICTURE BLOCK DIAGRAM


VIDEO IN/OUT (AN-2P)
101-1 V-A OUT
101-5 V MONI
101-3 V-B OUT
MAIN CONTROL (MC-81)
102-1 SUB R/L
102-2 STILL
102-3 P IN P ON
Q112 BUFFER
Q104 BUFFER
FL113 4.43MHz BPF
Q111 PHASE SHIFT
RV101 HUE
IC109
Q108 LPF
IC110 C DEMOD
FL120 4.43MHz BPF
1st AMP
2nd AMP
ACC DET
TINT
BURST GATE
SYNC SEP
APC DET
4fsc VCXO
1/4
R-Y DEMOD
B-Y DEMOD
COMP
ID PULSE
BURST GATE PULSE GEN
ID KILLER DET
Q106 LPF
Q107 LPF
RV103 HUE ADJ
CV103 DECODER FREE RUN ADJ
X104 17.7MHz
IC111 SYNC SEP
H SYNC SEP
V SYNC SEP
AFC
1/32
32fH VCO
X105 500kHz
Q105 INV
Q109 BUFFER
IC113 SYNC DET
IC101 SUB PICTURE ENCORDER
IC101 38 PB
IN2 CLAMP
IN1 CLAMP
C SYNC IN
V. OUT FRAME
MAIN C IN
SYNC MIX
SUB C IN Y/C MIX
VCA
MOD
ERROR AMP
SW
SUB OUT
FRAME (WG)
PIN P SW
C LEVEL FILTER
BURST LEVEL
APC FILTER
ACC FILTER
APC DET
ACC DET
VCA
BGA
BGP
FSC 0°
FSC 90°
4FSC
APC ERROR
FREE RUN CONT
I D
FREE RUN
CP2 GEN
CP1 CP2
SYNC SW
KILLER DET
ID KILLER
4fsc VCXO
1/2
CLAMP
IC101 19 PB
SYNC DET
BGP GEN
V-SYNC SEP
C-SYNC SEP
1/32
32fH VCO
AFC
H D MMV
Y. IN
R-Y
BFP R
B-Y
BFP B
HD IN
VCXO OUT
KILLER REF
ACK LEVEL
KILLER C
KILLER OUT
SYNC DET
SYNC DET OUT
SYN
VD
V SEP C
TIMING R
HO
SYM
VDM
HDM
FL114 4.43MHz BPF
RV102 COLOR LEVEL
CT101
ENCORDER FREE RUN ADJ
X102 17.7MHz
Q102 B-Y LPF
Q103 R-Y LPF
Q101 Y BUFFER
DL101 DL
FL112 LPF
IC103 D/A CONV
B-Y
R-Y
Y
CLK V
CLK R
CLK Y
BLK
D06
D01
IC107 RAM
D01
D06
D11
D16
A7
A0
CAS
RAS
SIC
SOC
IC112
Y
R-Y
B-Y
1·9 10
IC104
SYM
SYS
VDM
VDS
SEL
P-IN-P CONTROL
24·25·27 — 32
A7 — A0
CLKY DAY
CLKR DAR
CLKV DAB
BLK
SYM
V DM
H DM
H DS
LEF/RIG
STIL
P IN P ON
V DS
SYS
MEMORY READ TIMING GENERATOR
MAIN PICTURE SYNC
MEMORY CONTROL
OPERATION CONTROL
SUB PICTURE SYNC
CAS
RAS/IRE
SIC
SOC

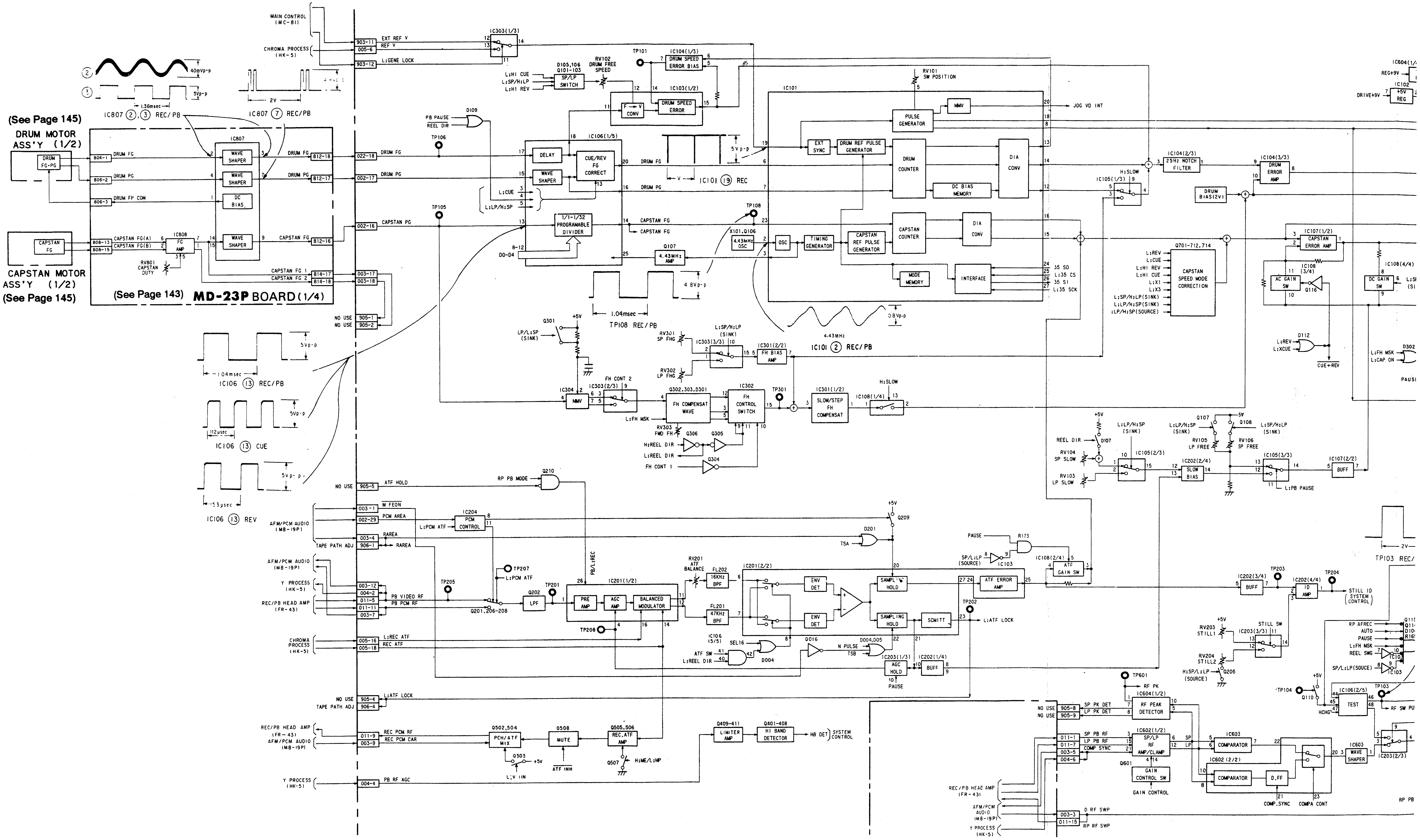

IC101 SUB PICTURE ENCORDER
IC101 38 PB
IN2
IN1
CLAMP
C SYNC IN
V. OUT
FRAME
MAIN
SUB
ERROR AMP
MAIN C IN
SYNC MIX
VCA
FL114
4.43MHz BPF
RV102
COLOR LEVEL
SUB C IN
Y/C MIX
MOD
SW
SUB OUT
FRAME (WG)
PIN P SW
C LEVEL FILTER
BURST LEVEL
WG
1/4
FSC 0°
FSC 90°
4FSC
APC FILTER
APC DET
APC ERROR
ACC FILTER
ACC DET
BGA
BGP
I D
VCA
VCXO
FREE RUN
FREE RUN CONT
CP2 GEN
CP1
CP2
SYNC SW
1/32
32fH VCO
VCO IN
VCO OUT
X101 500KHz
AFC
AFC FILTER
HD MMV
BGP GEN
BGD WIDTH
SYNC DET
V-SYNC SEP
C-SYNC SEP
KILLER DET
ID KILLER
1/2
4fsc VCXO
IC101 19 PB
Y. IN
R-Y
BFP R
B-Y
BFP B
HD IN
VCXO OUT
KILLER REF
ACK LEVEL
KILLER C
KILLER OUT
SYNC DET FILTER
SYNC DET OUT
SYN
VD
V SEP C
TIMING R
HD
SYM
VDM
HDM
Q106
Q107
LPF
B-Y DEMOD
COMP
ID PULSE
CT101
ENCORDER FREE RUN ADJ
X102 17.7MHz
Q102 B-Y LPF
Q103 R-Y LPF
Q101 Y BUFFER
DL101 DL
FL112 LPF
IC103 D/A CONV
CLK V
CLK R
CLK Y
BLK
D06
D01
IC107 RAM
D11
D16
A7
A0
CAS
RAS
SIC
SOC
IC108 A/D CONV
D1
D6
A/D CONV
MULTIPLEX
Y CLAMP
R-Y CLAMP
B-Y CLAMP
ADC
MPX Y
MPX R
MPX B
SCL
IC112
1·9·10
IC104
SYS
VDS
SEL
P-IN-P CONTROL
24·25 27 — 32
A7 — A0
RAS/IRE
CLKY
CLKR
CLKV
DAY
DAR
DAB
MEMORY READ TIMING GENERATOR
MAIN PICTURE SYNC
V DM
H DM
H DS
LEF/RIG
STIL
PIN P ON
V DS
MEMORY CONTROL
OPERATION CONTROL
SUB PICTURE SYNC
MEMORY WRITE TIMING GENERATOR
PINP SW
SW MM
CLK
VCOE
SCLK
RESET
D101
POW OFF RESET
Vcc
IC105
IC106
XTAL OSC
X103 30.2MHz
CV102
WRITE CLOCK ADJ

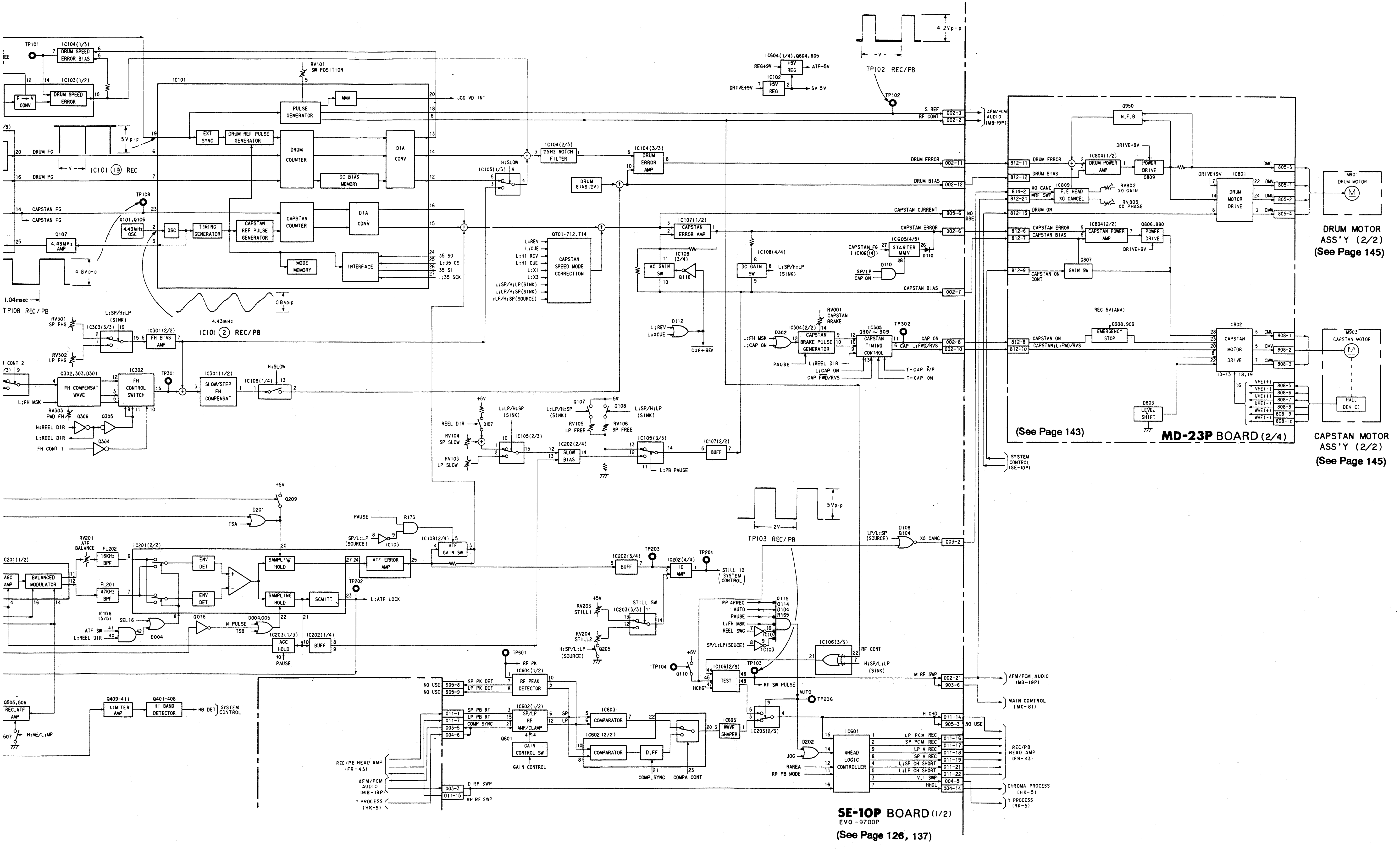
**(See Page 196)**

PM-11P (1/2)

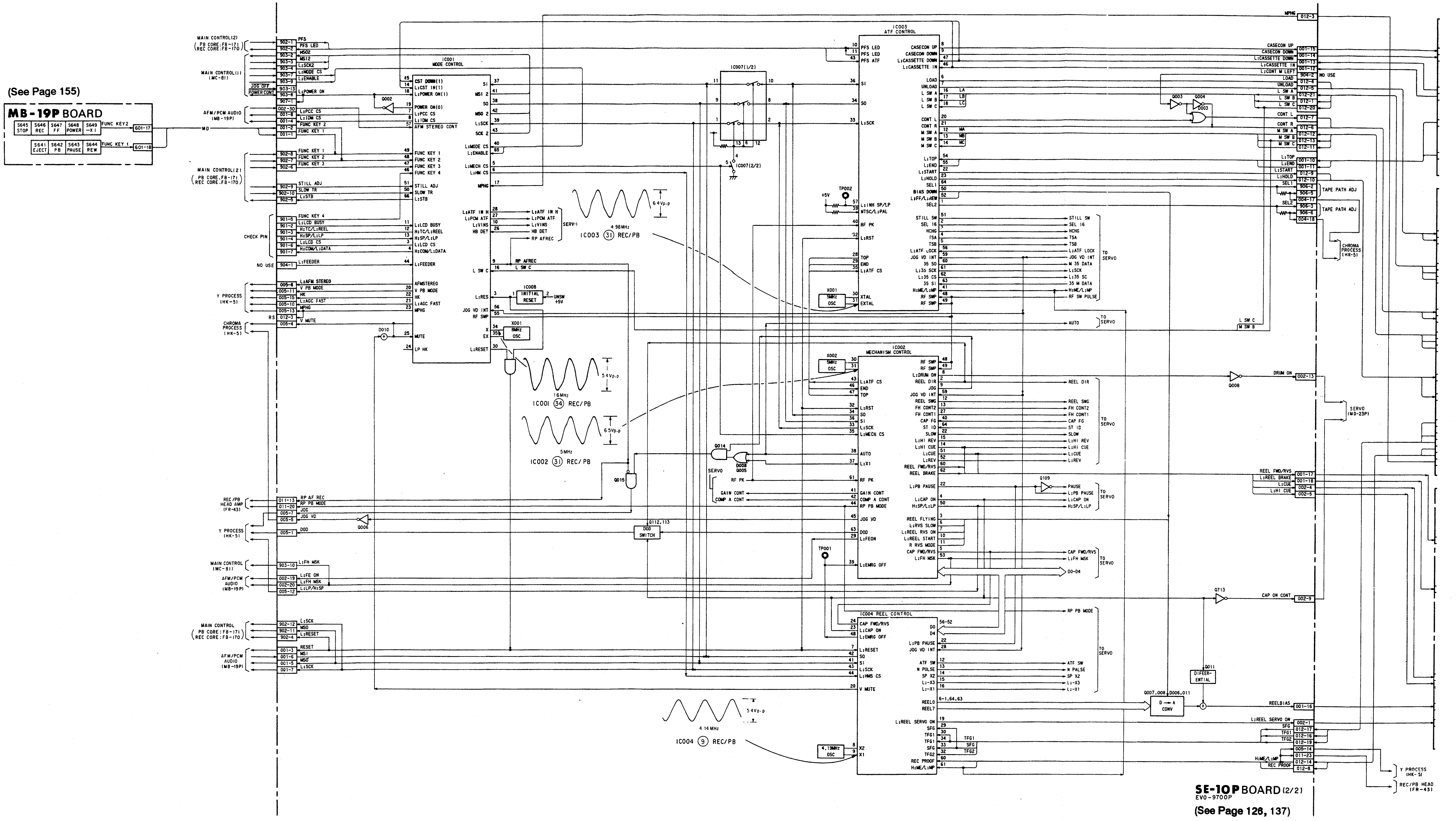
EVO-9700P

## 3-9. SERVO BLOCK DIAGRAM

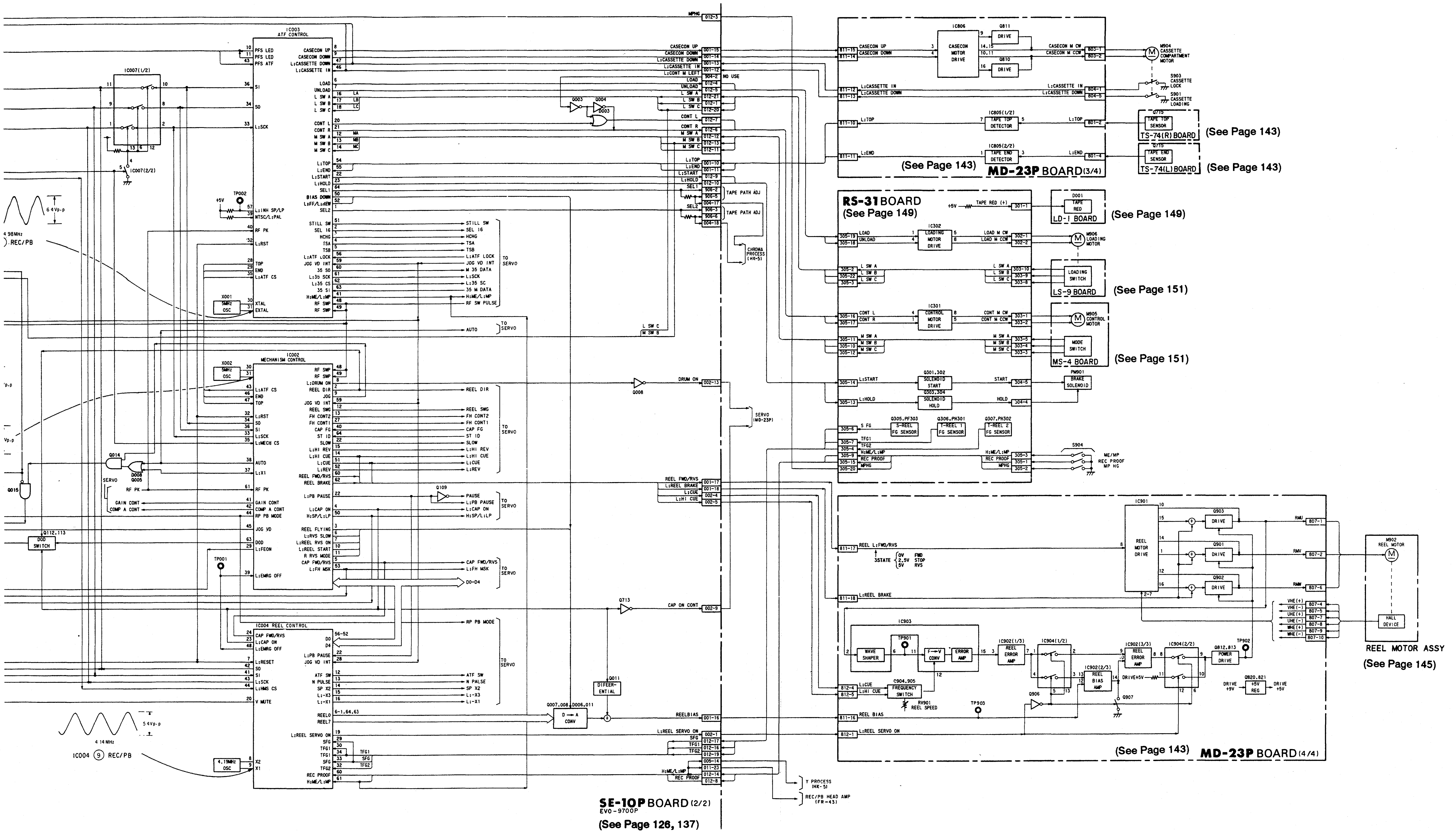

(See Page 145)
DRUM MOTOR ASS'Y (1/2)
CAPSTAN MOTOR ASS'Y (1/2)
(See Page 145)
(See Page 143)
MD-23P BOARD (1/4)
IC807 ②,③ REC/PB
IC807 ⑦ REC/PB
IC807
WAVE SHAPER
DC BIAS
FG AMP
IC808
RV801 CAPSTAN DUTY
DRUM FG
DRUM PG
CAPSTAN FG
40mVp-p
5Vp-p
1.36msec
2V
MAIN CONTROL (MC-81)
CHROMA PROCESS (HK-5)
EXT REF V
REF V
L:GENE LOCK
IC303(1/3)
SP/LP SWITCH
RV102 DRUM FREE SPEED
TP101
IC104(1/3) DRUM SPEED ERROR BIAS
IC103(1/2) DRUM SPEED ERROR
F→V CONV
IC106(1/5)
DELAY
CUE/REV FG CORRECT
WAVE SHAPER
1/1-1/32 PROGRAMABLE DIVIDER
PB PAUSE
REEL DIR
D109
TP105
TP106
TP108
X101,Q106 4.43MHz OSC
Q107 4.43MHz AMP
IC101
PULSE GENERATOR
MMV
EXT SYNC
DRUM REF PULSE GENERATOR
DRUM COUNTER
D/A CONV
DC BIAS MEMORY
OSC
TIMING GENERATOR
CAPSTAN REF PULSE GENERATOR
CAPSTAN COUNTER
MODE MEMORY
INTERFACE
RV101 SW POSITION
JOG VD INT
IC101 ⑲ REC
IC101 ② REC/PB
4.8Vp-p
1.04msec
TP108 REC/PB
0.8Vp-p
IC106 ⑬ REC/PB
IC106 ⑬ CUE
IC106 ⑬ REV
IC104(2/3) 25Hz NOTCH FILTER
IC104(3/3) DRUM ERROR AMP
DRUM BIAS(2V)
IC105(1/3)
Q701-712,714 CAPSTAN SPEED MODE CORRECTION
IC107(1/2) CAPSTAN ERROR AMP
IC108(3/4) AC GAIN SW
Q116
IC108(4/4) DC GAIN SW
D112
CUE+REV
IC604 REG
IC102 +5V REG
Q301
IC304 MMV
IC303(2/3)
FH CONT 2
IC303(3/3)
IC301(2/2) FH BIAS AMP
RV301 SP FHG
RV302 LP FHG
Q302,303,D301 FH COMPENSAT WAVE
IC302 FH CONTROL SWITCH
TP301
IC301(1/2) SLOW/STEP FH COMPENSAT
IC108(1/4)
H:SLOW
RV303 FWD FH
Q306
Q305
Q304
H:REEL DIR
L:REEL DIR
FH CONT 1
Q107
Q108
RV105 LP FREE
RV106 SP FREE
RV104 SP SLOW
RV103 LP SLOW
D107
IC105(2/3)
IC202(2/4) SLOW BIAS
IC105(3/3)
IC107(2/2) BUFF
L:PB PAUSE
ATF HOLD
Q210
RP PB MODE
AFM/PCM AUDIO (MB-19P)
M FEON
PCM AREA
IC204 PCM CONTROL
RAREA
TAPE PATH ADJ
Q209
D201
TSA
Y PROCESS (HK-5)
REC/PB HEAD AMP (FR-43)
PB VIDEO RF
PB PCM RF
TP205
TP207
TP201
Q202 LPF
Q201,206-208
IC201(1/2)
PRE AMP
AGC AMP
BALANCED MODULATOR
TP208
RV201 ATF BALANCE
FL202 16KHz BPF
FL201 47KHz BPF
IC201(2/2)
ENV DET
SAMPLING HOLD
SCHMITT
ATF ERROR AMP
TP202
L:ATF LOCK
PAUSE
R173
IC103
IC108(2/4) ATF GAIN SW
L:REC ATF
REC ATF
IC106 (5/5)
SEL16
ATF SW
L:REEL DIR
D004
Q016
D004,005 N PULSE TSB
IC203(1/3) AGC HOLD
IC202(1/4) BUFF
IC202(3/4) BUFF
TP203
IC202(4/4) ID AMP
TP204
STILL ID (SYSTEM CONTROL)
TP103 REC/
L:ATF LOCK
REC PCM RF
REC PCM CAR
Q502,504 PCH/ATF MIX
Q508 MUTE
Q505,506 REC.ATF AMP
Q503
Q507
H:ME/L:MP
Q409-411 LIMITER AMP
Q401-408 HI BAND DETECTOR
HB DET SYSTEM CONTROL
PB RF AGC
RV203 STILL1
RV204 STILL2
IC203(3/3)
Q205
STILL SW
TP601
RF PK
IC604(1/2) RF PEAK DETECTOR
SP PK DET
LP PK DET
IC602(1/2) SP/LP RF AMP/CLAMP
Q601
GAIN CONTROL SW
GAIN CONTROL
IC603 COMPARATOR
IC602(2/2)
COMPARATOR
D.FF
COMP.SYNC
COMPA CONT
IC603 WAVE SHAPER
IC203(2/3)
IC106(2/5) TEST
TP104
Q110
TP103
RF SW PU
D RF SWP
RP RF SWP
RP PB
NO USE


TP101
IC104(1/3) DRUM SPEED ERROR BIAS
IC103(1/2) DRUM SPEED ERROR
F→V CONV
RV101 SW POSITION
IC101
PULSE GENERATOR
MMV
JOG VD INT
EXT SYNC
DRUM REF PULSE GENERATOR
DRUM COUNTER
DC BIAS MEMORY
D/A CONV
DRUM FG
DRUM PG
CAPSTAN FG
5Vp-p
IC101 ⑲ REC
TP108
X101,Q106 4.43MHz OSC
Q107 4.43MHz AMP
OSC
TIMING GENERATOR
CAPSTAN REF PULSE GENERATOR
CAPSTAN COUNTER
MODE MEMORY
INTERFACE
35 SO
L:35 CS
35 SI
L:35 SCK
4.8Vp-p
1.04msec
TP108 REC/PB
4.43MHz
3.8Vp-p
IC101 ② REC/PB
IC104(2/3) 25Hz NOTCH FILTER
IC104(3/3) DRUM ERROR AMP
DRUM BIAS(2V)
IC105(1/3)
H:SLOW
Q701-712,714 CAPSTAN SPEED MODE CORRECTION
L:REV
L:CUE
L:HI REV
L:HI CUE
L:X1
L:X3
L:SP/H:LP(SINK)
L:LP/H:SP(SINK)
L:LP/H:SP(SOURCE)
IC107(1/2) CAPSTAN ERROR AMP
IC108(3/4)
AC GAIN SW
Q116
IC108(4/4)
DC GAIN SW
L:SP/H:LP (SINK)
D112
L:REV
L:XCUE
CUE+REV
IC604(1/4),Q604,605 +5V REG
REG+9V
ATF+5V
IC102 +5V REG
DRIVE+9V
SV 5V
4.2Vp-p
-V-
TP102 REC/PB
TP102
S REF
RF CONT
002-3
002-2
AFM/PCM AUDIO (MB-19P)
DRUM ERROR
002-11
DRUM BIAS
002-12
CAPSTAN CURRENT
905-6
NO USE
CAPSTAN ERROR
002-6
CAPSTAN FG IC106⑬
IC605(4/5) STARTER MMV
D110
SP/LP
CAP ON
CAPSTAN BIAS
002-7
RV001 CAPSTAN BRAKE
IC304(2/2)
D302
L:FH MSK
L:CAP ON
CAPSTAN BRAKE PULSE GENERATOR
IC305 Q307~309 CAPSTAN TIMING CONTROL
TP302
CAP ON
L:FWD/RVS
002-8
002-10
PAUSE
L:REEL DIR
L:CAP ON
CAP FWD/RVS
T-CAP F/P
T-CAP ON
RV301 SP FHG
IC303(3/3)
L:SP/H:LP (SINK)
IC301(2/2) FH BIAS AMP
RV302 LP FHG
I CONT 2
Q302,303,Q301 FH COMPENSAT WAVE
IC302 FH CONTROL SWITCH
TP301
IC301(1/2) SLOW/STEP FH COMPENSAT
IC108(1/4)
H:SLOW
L:FH MSK
RV303 FWD FH
Q306
Q305
H:REEL DIR
L:REEL DIR
Q304
FH CONT 1
+5V
REEL DIR
D107
L:LP/H:SP (SINK)
RV104 SP SLOW
RV103 LP SLOW
IC105(2/3)
Q107
L:LP/H:SP (SINK)
Q108
L:SP/H:LP (SINK)
RV105 LP FREE
RV106 SP FREE
IC202(2/4) SLOW BIAS
IC105(3/3)
L:PB PAUSE
IC107(2/2) BUFF
Q950 N.F.B
DRIVE+9V
IC804(1/2) DRUM POWER AMP
POWER DRIVE Q809
812-11
812-12
XO CANC
IC809
814-2 MRF SWP
812-21
F.E HEAD XO CANCEL
RV802 XO GAIN
RV803 XO PHASE
DRUM ON
812-13
IC801 DRUM MOTOR DRIVE
DMC
805-3
DMU
805-1
DMV
805-2
DMW
805-4
M901 DRUM MOTOR
DRUM MOTOR ASS'Y (2/2)
(See Page 145)
CAPSTAN ERROR
CAPSTAN BIAS
812-6
812-7
IC804(2/2) CAPSTAN POWER AMP
Q806,880 POWER DRIVE
Q807
812-9 CAPSTAN ON CONT
GAIN SW
REG 5V(ANA)
Q908,909 EMERGENCY STOP
CAPSTAN ON
CAPSTAN;L:FWD/RVS
812-8
812-10
IC802 CAPSTAN MOTOR DRIVE
CMU
808-1
CMV
808-2
CMW
808-3
VHE(+)
VHE(-)
UHE(+)
UHE(-)
WHE(+)
WHE(-)
808-5
808-6
808-7
808-4
808-8
808-9
808-10
D803 LEVEL SHIFT
M903 CAPSTAN MOTOR
HALL DEVICE
CAPSTAN MOTOR ASS'Y (2/2)
(See Page 145)
(See Page 143)
MD-23P BOARD (2/4)
SYSTEM CONTROL (SE-10P)
+5V
Q209
D201
TSA
PAUSE
R173
SP/L:LP (SOURCE)
IC103
IC108(2/4) ATF GAIN SW
RV201 ATF BALANCE
FL202 16KHz BPF
IC201(2/2)
IC201(1/2)
AGC AMP
BALANCED MODULATOR
FL201 47KHz BPF
ENV DET
SAMPLING HOLD
ATF ERROR AMP
TP202
SCHMITT
L:ATF LOCK
IC106(5/5)
SEL16
ATF SW
L:REEL DIR
D004
Q016
D004,005
N PULSE
TSB
IC203(1/3) AGC HOLD
IC202(1/4) BUFF
PAUSE
IC202(3/4) BUFF
TP203
IC202(4/4) ID AMP
TP204
STILL ID (SYSTEM CONTROL)
5Vp-p
2V
TP103 REC/PB
LP/L:SP (SOURCE)
D108 Q104
XO CANC
003-2
+5V
RV203 STILL1
STILL SW
IC203(3/3)
RV204 STILL2
H:SP/L:LP (SOURCE)
Q205
RP AFREC
AUTO
PAUSE
L:FH MSK
REEL SWG
SP/L:LP(SOUCE)
IC103
Q115 Q114 D104 R165
IC106(3/5)
RF CONT
H:SP/L:LP (SINK)
TP601
RF PK
IC604(1/2) RF PEAK DETECTOR
TP104
Q110
IC106(2/5) TEST
HCHG
TP103
RF SW PULSE
M RF SWP
002-21
903-6
AFM/PCM AUDIO (MB-19P)
MAIN CONTROL (MC-81)
Q505,506 REC,ATF AMP
H:ME/L:MP
Q409-411 LIMITER AMP
Q401-408 HI BAND DETECTOR
HB DET
SYSTEM CONTROL
NO USE
905-8
905-9
SP PK DET
LP PK DET
IC602(1/2) SP/LP RF AMP/CLAMP
SP PB RF
LP PB RF
COMP SYNC
011-1
011-7
003-5
004-6
Q601 GAIN CONTROL SW
GAIN CONTROL
IC603 COMPARATOR
IC602(2/2) COMPARATOR
D.FF
COMP.SYNC
COMPA CONT
IC603 WAVE SHAPER
IC203(2/3)
AUTO
TP206
H CHG
011-14
905-3
IC601 4HEAD LOGIC CONTROLLER
D202
JOG
RAREA
RP PB MODE
LP PCM REC
SP PCM REC
LP V REC
SP V REC
L:SP CH SHORT
L:LP CH SHORT
V.I SWP
HHDL
011-16
011-17
011-18
011-19
011-21
011-22
004-5
004-14
REC/PB HEAD AMP (FR-43)
CHROMA PROCESS (HK-5)
Y PROCESS (HK-5)
REC/PB HEAD AMP (FR-43)
AFM/PCM AUDIO (MB-19P)
Y PROCESS (HK-5)
D RF SWP
RP RF SWP
003-3
011-15
SE-10P BOARD (1/2)
EVO-9700P
(See Page 126, 137)

## 3-10. SYSTEM CONTROL BLOCK DIAGRAM


(See Page 155)
MB-19P BOARD
S645 STOP
S646 REC
S647 FF
S648 POWER
S649 -X1
S641 EJECT
S642 PB
S643 PAUSE
S644 REW
FUNC KEY2
FUNC KEY 1
601-17
601-18
MD
MAIN CONTROL(2) (PB CORE:FB-171) (REC CORE:FB-170)
MAIN CONTROL(1) (MC-81)
AFM/PCM AUDIO (MB-19P)
MAIN CONTROL(2) (PB CORE:FB-171) (REC CORE:FB-170)
CHECK PIN
NO USE
Y PROCESS (HK-5)
CHROMA PROCESS (HK-5)
REC/PB HEAD AMP (FR-43)
Y PROCESS (HK-5)
MAIN CONTROL (MC-81)
AFM/PCM AUDIO (MB-15P)
MAIN CONTROL (PB CORE:FB-171) (REC CORE:FB-170)
AFM/PCM AUDIO (MB-19P)
IC001 MODE CONTROL
CST DOWN(1)
L:CST IN(1)
L:POWER ON(1)
POWER ON(0)
L:PCC CS
L:IDM CS
AFM STEREO CONT
FUNC KEY 1
FUNC KEY 2
FUNC KEY 3
FUNC KEY 4
STILL ADJ
SLOW TR
L:STB
L:LCD BUSY
H:TC/L:REEL
H:SP/L:LP
L:LCD CS
H:COM/L:DATA
L:FEEDER
AFMSTEREO
V PB MODE
HK
L:AGC FAST
MPHG
MUTE
LP HK
SI
MSI 2
SO
MSO 2
L:SCK
SCK 2
L:MODE CS
L:ENABLE
L:MECH CS
L:HM CS
MPHG
L:ATF IN H
L:PCM ATF
L:VINS
HB DET
L SW C
L:RES
JOG VD INT
RF SWP
X
EX
L:RESET
RP AFREC
IC008 INITIAL RESET
UNSW +5V
X001 8MHz OSC
Q002
D010
IC003 (31) REC/PB
4.98MHz
6.4Vp-p
IC001 (34) REC/PB
16MHz
5.4Vp-p
IC002 (31) REC/PB
5MHz
6.5Vp-p
IC004 (9) REC/PB
4.14MHz
5.4Vp-p
IC007(1/2)
IC007(2/2)
IC003 ATF CONTROL
PFS LED
PFS LED
PFS ATF
CASECON UP
CASECON DOWN
L:CASSETTE DOWN
L:CASSETTE IN
LOAD
UNLOAD
L SW A
L SW B
L SW C
CONT L
CONT R
M SW A
M SW B
M SW C
L:TOP
L:END
L:START
L:HOLD
SEL1
BIAS DOWN
L:FF/L:REW
SEL2
STILL SW
SEL 16
HCHG
TSA
TSB
L:ATF LOCK
JOG VD INT
35 SO
L:35 SCK
L:35 CS
35 SI
H:ME/L:MP
RF SWP
RF SWP
L:NH SP/LP
NTSC/L:PAL
RF PK
L:RST
TOP
END
L:ATF CS
XTAL
EXTAL
X001 5MHz OSC
TP002
+5V
TO SERVO
AUTO
IC002 MECHANISM CONTROL
X002 5MHz OSC
L:DRUM ON
REEL DIR
JOG
JOG VD INT
REEL SWG
FH CONT2
FH CONT1
CAP FG
ST ID
SLOW
L:HI REV
L:HI CUE
L:CUE
L:REV
REEL FWD/RVS
REEL BRAKE
L:PB PAUSE
L:CAP ON
H:SP/L:LP
REEL FLYING
L:RVS SLOW
L:REEL RVS ON
L:REEL START
R RVS MODE
CAP FWD/RVS
L:FH MSK
L:ATF CS
END
TOP
L:RST
SO
SI
L:SCK
L:MECH CS
AUTO
L:X1
RF PK
GAIN CONT
COMP A CONT
RP PB MODE
JOG VD
DOD
L:FEON
L:EMRG OFF
Q014
Q008 Q005
Q015
SERVO
Q006
Q112,113 DOD SWITCH
TP001
Q109
PAUSE
L:PB PAUSE
L:CAP ON
H:SP/L:LP
CAP FWD/RVS
L:FH MSK
D0-D4
IC004 REEL CONTROL
CAP FWD/RVS
L:CAP ON
L:EMRG OFF
L:RESET
SO
SI
L:SCK
L:HMS CS
V MUTE
D0
D4
L:PB PAUSE
JOG VD INT
ATF SW
N PULSE
SP X2
L:-X3
L:-X1
REEL0
REEL7
L:REEL SERVO ON
SFG
TFG1
TFG1
SFG
TFG2
REC PROOF
H:ME/L:MP
4.19MHz OSC
X2
X1
RP PB MODE
ATF SW
N PALSE
SP X2
L:-X3
L:-X1
Q008
DRUM ON
SERVO (MD-23P)
Q713
CAP ON CONT
Q011 DIFFER-ENTIAL
Q007,008,D006,011 D→A CONV
REELBIAS
L:REEL SERVO ON
TFG1
TFG2
H:ME/L:MP
REC PROOF
Y PROCESS (HK-5)
REC/PB HEAD AMP (FR-43)
MPHG
CASECON UP
CASECON DOWN
L:CASSETTE DOWN
L:CASSETTE IN
L:CONT M LEFT
NO USE
LOAD
UNLOAD
L SW A
L SW B
L SW C
CONT L
CONT R
M SW A
M SW B
M SW C
L:TOP
L:END
L:START
L:HOLD
SEL1
SEL2
TAPE PATH ADJ
TAPE PATH ADJ
CHROMA PROCESS (HK-5)
Q003 Q004 D003
L SW C
M SW B
REEL FWD/RVS
L:REEL BRAKE
L:CUE
L:HI CUE
SE-10P BOARD (2/2)
EVO-9700P

(See Page 126, 137)


IC003 ATF CONTROL
IC002 MECHANISM CONTROL
IC004 REEL CONTROL
IC007(1/2)
IC007(2/2)
X001 5MHz OSC
X002 5MHz OSC
4.19MHz OSC
TP001
TP002
Q014
Q015
D008 Q005
Q112,113 DOD SWITCH
Q003
Q004
Q008
Q109
Q713
Q011 DIFFER-ENTIAL
Q007,008,Q006,011 D→A CONV
6.4Vp-p
4.98MHz
REC/PB
5.4Vp-p
4.14MHz
IC004 ⑨ REC/PB
TO SERVO
TAPE PATH ADJ
CHROMA PROCESS (HK-5)
SERVO (MD-23P)
Y PROCESS (HK-5)
REC/PB HEAD AMP (FR-43)
SE-10P BOARD (2/2)
EVO-9700P
(See Page 126, 137)
MD-23P BOARD(3/4)
(See Page 143)
IC806 CASECON MOTOR DRIVE
Q811 DRIVE
Q810 DRIVE
M904 CASSETTE COMPARTMENT MOTOR
S903 CASSETTE LOCK
S901 CASSETTE LOADING
IC805(1/2) TAPE TOP DETECTOR
IC805(2/2) TAPE END DETECTOR
Q715 TAPE TOP SENSOR
TS-74(R) BOARD
(See Page 143)
Q715 TAPE END SENSOR
TS-74(L) BOARD
(See Page 143)
RS-31 BOARD
(See Page 149)
D001 TAPE RED
LD-1 BOARD
(See Page 149)
IC302 LOADING MOTOR DRIVE
M906 LOADING MOTOR
LOADING SWITCH
LS-9 BOARD
(See Page 151)
IC301 CONTROL MOTOR DRIVE
M905 CONTROL MOTOR
MODE SWITCH
MS-4 BOARD
(See Page 151)
Q301,302 SOLENOID START
Q303,304 SOLENOID HOLD
PM901 BRAKE SOLENOID
Q305,PF303 S-REEL FG SENSOR
Q306,PH301 T-REEL 1 FG SENSOR
Q307,PH302 T-REEL 2 FG SENSOR
S904
ME/MP REC PROOF MP HG
IC901 REEL MOTOR DRIVE
Q903 DRIVE
Q901 DRIVE
Q902 DRIVE
M902 REEL MOTOR
HALL DEVICE
REEL MOTOR ASSY
(See Page 145)
REEL L:FWD/RVS
3STATE 0V FWD 2.5V STOP 5V RVS
L:REEL BRAKE
IC903
TP901
WAVE SHAPER
F→V CONV
ERROR AMP
IC902(1/3) REEL ERROR AMP
IC904(1/2)
IC902(2/3) REEL BIAS AMP
IC902(3/3) REEL ERROR AMP
IC904(2/2)
Q812,813 POWER DRIVE
TP902
Q904,905 FREQUENCY SWITCH
RV901 REEL SPEED
TP903
Q906
Q907
Q820,821 +5V REG
DRIVE +9V
DRIVE +5V
(See Page 143)
MD-23P BOARD(4/4)

## 3-11. SYSTEM CONTROL — VIDEO (Y PROCESS, CHROMA PROCESS, REC/PB HEAD AMP) BLOCK INTERFACE

| Signal | I/O | Pin No. | STOP | FF | REW | REC | REC• PAUSE | AUDIO DUB | AUDIO DUB PAUSE | PB | PB• PAUSE | ×1 | – ×1 | ×2 | – ×3 | CUE ( ×9) | REV (– ×7) | SLOW (1/5) | SLOW (–1/5) | HII CUE ( ×19) | HI REV (– ×17) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| RP AF REC | O | Pin ⑨ of IC001 | L | L | L | L | L | H | L | L | L | L | L | L | L | L | L | L | L | L | L |
| JOG | O | Pin ⑨ of IC002 | L | L | L | L | L | H | H | L | H | H | H | H | H | H | H | H | H | H | H |
| $\overline{\times 1}$ | O | Pin ㊲ of IC002 | H | H | H | H | H | H | H | H | H | L | H | H | H | H | H | H | H | H | H |
| RP PB MODE | O | Pin ㊹ of IC002 | H | H | H | L | H | H | H | H | H | H | H | H | H | H | H | H | H | H | H |
| JOG VD | O | Pin ㊺ of IC002 | H | | | | | $\overline{VD}$ pulse | | H | $\overline{VD}$ pulse | | | | | | | | | | |
| SP/$\overline{LP}$ | O | Pin ㊿ of IC002 | "H" at REC or PB in SP mode | | | | | | | | | | | | | | | | | | |
| DOD | O | Pin (63) of IC002 | L | L | L | L | L | H | L | L | L | L | H | H | H | H | H | L | H | H | H |
| VIDEO MUTE | O | Pin ⑳ of IC004 | L | L | L | L | L | L | L | L | L | L | L | L | L | L | L | L | L | L | L |
| ME/$\overline{MP}$ | O | Pin ⑭ of CN012 | "L" when using MP or MPHG tape | | | | | | | | | | | | | | | | | | |

## 3-12. SYSTEM CONTROL — SERVO (CAPSTAN MOTOR) BLOCK INTERFACE

| Signal | I/O | Pin No. | STOP | FF | REW | REC | REC• PAUSE | AUDIO DUB | AUDIO DUB PAUSE | PB | PB• PAUSE | ×1 | – ×1 | ×2 | – ×3 | CUE ( ×9) | REV (– ×7) | SLOW (1/5) | SLOW (–1/5) | HII CUE ( ×19) | HI REV (– ×17) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $\overline{CAP\ ON}$ | O | Pin ④ of IC002 | H | H | H | L | H | L | H | L | H | L | L | L | L | L | L | *1 | *1 | L | L |
| CAP $\overline{FWD}$/RVS | O | Pin ⑤ of IC002 | L | L | L | L | L | L | L | L | L | L | H | L | H | L | H | *1 | *1 | L | H |
| $\overline{HI\ CUE}$ | O | Pin ⑭ of IC002 | H | H | H | H | H | H | H | H | H | H | H | H | H | H | H | H | H | L | H |
| $\overline{HI\ REV}$ | O | Pin ⑮ of IC002 | H | H | H | H | H | H | H | H | H | H | H | H | H | H | H | H | H | H | L |
| D0 – D4 *2 | O | Pins ⑯ to ⑳ of IC002 | "1" | "1" | "1" | "1" | "1" | "1" | "1" | "1" | "1" | "1" | "1" | "2" | "3" | "9" | "7" | "1" | "1" | "19" | "17" |
| $\overline{PB\ PAUSE}$ | O | Pin ㉓ of IC002 | H | H | H | H | H | H | L | H | L | H | H | H | H | H | H | L | L | H | H |
| $\overline{CUE}$ | O | Pin (51) of IC002 | H | H | H | H | H | H | H | H | H | H | H | H | H | L | H | H | H | L | H |
| $\overline{REV}$ | O | Pin (52) of IC002 | H | H | H | H | H | H | H | H | H | H | H | H | H | H | L | H | H | H | L |
| $\overline{-\times 1}$ | O | Pin ⑯ of IC004 | H | H | H | H | H | H | H | H | H | H | L | H | H | H | H | H | H | H | H |
| $\overline{-\times 3}$ | O | Pin ⑮ of IC004 | H | H | H | H | H | H | H | H | H | H | H | H | L | H | H | H | H | H | H |

*1. Pulse output

*2. Capstan FG dividing data output

| | | "1" | "2" | "7" | "9" | "19" | "17" | "3" |
|---|---|---|---|---|---|---|---|---|
| D0 | Pin ⑯ of IC002 | H | L | H | H | H | H | H |
| D1 | Pin ⑰ of IC002 | L | H | H | L | H | L | H |
| D2 | Pin ⑱ of IC002 | L | L | H | L | L | L | L |
| D3 | Pin ⑲ of IC002 | L | L | L | H | L | L | L |
| D4 | Pin ⑳ of IC002 | L | L | L | L | H | H | L |

## 3-13. SYSTEM CONTROL — SERVO (DRUM MOTOR) BLOCK INTERFACE

| Mode<br>Signal | I/O | Pin No. | STOP | FF | REW | REC | REC• PAUSE | AUDIO DUB | AUDIO DUB PAUSE | PB | PB• PAUSE | ×1 | – ×1 | ×2 | – ×3 | CUE ( ×9) | REV (– ×7) | SLOW (1/5) | SLOW (–1/5) | HII CUE ( ×19) | HI REV (– ×17) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DRUM ON | O | Pin ⑧ of IC002 | H | L | L | L | L | L | L | L | L | L | L | L | L | L | L | L | L | L | L |
| FH CONT2 | O | Pin ⑬ of IC002 | L | L | L | L | L | L | L | L | L | L | L | L | L | L | L | *1 | *1 | L | L |
| SLOW | O | Pin ㉒ of IC002 | L | L | L | L | L | L | L | L | L | L | L | L | L | L | L | H | H | L | L |
| FH CONT1 | O | Pin ㉗ of IC002 | L | L | L | L | L | L | L | L | L | L | L | L | L | H | H | *1 | *1 | L | L |
| FH MASK | O | Pin (53) of IC002 | H | H | H | H | H | H | H | H | H | H | H | H | H | H | H | *1 | *1 | H | H |

*1. Pulse output

## 3-14. SYSTEM CONTROL — SERVO (REEL MOTOR) BLOCK INTERFACE

| Mode<br>Signal | I/O | Pin No. | STOP | FF | REW | REC | REC• PAUSE | AUDIO DUB | AUDIO DUB PAUSE | PB | PB• PAUSE | ×1 | – ×1 | ×2 | – ×3 | CUE ( ×9) | REV (– ×7) | SLOW (1/5) | SLOW (–1/5) | HII CUE ( ×19) | HI REV (– ×17) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| REEL DIR | O | Pin ② of IC002 | H/L | L | H | L | L | L | L | L | H/L | L | H | L | H | L | H | L | H | L | H |
| REEL FLYING | O | Pin ③ of IC002 | Normally "L", "H" pulse when shifting STOP → FF/REW mode | | | | | | | | | | | | | | | | | | |
| REEL RVS SLOW | O | Pin ⑥ of IC002 | H | H | H | H | H | H | H | H | H | H | H | H | H | H | H | H | L | H | H |
| REEL RVS ON | O | Pin ⑦ of IC002 | Normally "H", "L" pulse when shifting FWD → REV mode ( – ×1 or more) | | | | | | | | | | | | | | | | | | |
| REEL START | O | Pin ⑩ of IC002 | Normally "H", "L" pulse when shifting STOP → FF/REW mode | | | | | | | | | | | | | | | | | | |
| R RVS MODE | O | Pin ⑪ of IC002 | L | L | L | L | L | L | L | L | L | L | L | L | L | L | L | L | L | L | L |
| REEL SWG | O | Pin ⑫ of IC002 | Normally "L", "H" pulse when FWD ⇄ REV running direction changes. | | | | | | | | | | | | | | | | | | |
| REEL FWD/RVS | O | Pin (60) of IC002 | 2.5V | L | H | L | 2.5V | L | 2.5V | L | 2.5V | L | H | L | H | L | H | "H" pulse | "L" pulse | L | H |
| REEL BRK | O | Pin (62) of IC002 | Normally "H", "L" pulse when shifting REC → REC•PAUSE mode | | | | | | | | | | | | | | | | | | |
| REEL 0 – 7 *1 | O | Pins ① to ⑥, (63), (64) of IC004 | "59" | "87" | "87" | "59" | "46" | "59" | "46" | "59" | "48" | "59" | *2 | "6F" | *2 | *3 | *3 | *4 | *4 | *3 | *3 |
| REEL SERVO ON | O | Pin ⑲ of IC004 | H | H | H | L | H | L | H | L | H | L | H | L | H | L | H | H | H | L | H |

*1. Reel bias voltage output (8 bit digital data)

| | | "46" | "48" | "59" | "6F" | "87" |
|---|---|---|---|---|---|---|
| **REEL 0** | **Pin ⑥ of IC004** | L | L | H | H | H |
| **REEL 1** | **Pin ⑤ of IC004** | H | L | L | H | H |
| **REEL 2** | **Pin ④ of IC004** | H | L | L | H | H |
| **REEL 3** | **Pin ③ of IC004** | L | H | H | H | L |
| **REEL 4** | **Pin ② of IC004** | L | L | H | L | L |
| **REEL 5** | **Pin ① of IC004** | L | L | L | H | L |
| **REEL 6** | **Pin (64) of IC004** | H | H | H | H | L |
| **REEL 7** | **Pin (63) of IC004** | L | L | L | L | H |
| **REEL BIAS** | **Pin ⑯ of CN001** | 1.45V | 1.5V | 1.8V | 2.3V | 2.8V |

*2. Changed by SFG frequency.
*3. Changed by tape speed (SP/LP mode).
*4. Changed by synchronizing to the capstan operation.
*5. Take up tape slack by becoming "H" at shifting HI REV → STOP mode.

## 3-15. SYSTEM CONTROL — SERVO (ATF SERVO) BLOCK INTERFACE

| | Mode | | STOP | FF | REW | REC | REC• PAUSE | AUDIO DUB | AUDIO DUB PAUSE | PB | PB• PAUSE | ×1 | – ×1 | ×2 | – ×3 | CUE (×9) | REV (– ×7) | SLOW (1/5) | SLOW (–1/5) | HII CUE (×19) | HI REV (– ×17) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Signal | I/O | Pin No. | | | | | | | | | | | | | | | | | | | |
| RP PB MODE | O | Pin ㊹ of IC002 | H | H | H | L | H | H | H | H | H | H | H | H | H | H | H | H | H | H | H |
| JOG VD INT | I | Pins (59) of IC002, IC003 | L | Pulse input | | | | | | | | | | | | | | | | | |
| SEL 2 | O | Pin ① of IC003 | H | H | H | *2 | *2 | *2 | *2 | *2 | *2 | *2 | *2 | *2 | *2 | *2 | *2 | *2 | *2 | *2 | *2 |
| SEL 16 | O | Pin ② of IC003 | L | L | L | *2 | L | *2 | L | *2 | L | *2 | *2 | *2 | *2 | *2 | *2 | *2 | *2 | *2 | *2 |
| TSA | O | Pin ④ of IC003 | L | L | L | L | L | *2 | L | *2 | L | *2 | *2 | *2 | *2 | L | L | L | L | L | L |
| TSB | O | Pin ⑤ of IC003 | L | L | L | L | L | *2 | L | *2 | L | *2 | *2 | *2 | *2 | L | L | L | L | L | L |
| M RF SW PULSE | I | Pins ㊽, ㊾ of IC003 | H/L | Field sync pulse | | | | | | | | | | | | | | | | | |
| SEL 1 | O | Pin (64) of IC003 | H | H | H | *2 | *2 | *2 | *2 | *2 | *2 | *2 | *2 | *2 | *2 | *2 | *2 | *2 | *2 | *2 | *2 |
| ATF SW | O | Pin ⑫ of IC004 | L | L | L | L | L | L | *1 | L | *1 | L | L | L | L | L | L | *1 | *1 | L | L |
| N PULSE | O | Pin ⑬ of IC004 | L | L | L | L | L | L | L | L | *1 | L | *1 | L | L | L | L | *1 | *1 | L | L |

*1. Pulse output
*2. Pulse output by ATF sequence

## 3-16. SYSTEM CONTROL — SERVO (STILL) BLOCK INTERFACE

| | Mode | | STOP | FF | REW | REC | REC• PAUSE | AUDIO DUB | AUDIO DUB PAUSE | PB | PB• PAUSE | ×1 | – ×1 | ×2 | – ×3 | CUE (×9) | REV (– ×7) | SLOW (1/5) | SLOW (–1/5) | HII CUE (×19) | HI REV (– ×17) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Signal | I/O | Pin No. | | | | | | | | | | | | | | | | | | | |
| RF PK | I | Pin (61) of IC002 | Pulse input at PB pause. | | | | | | | | | | | | | | | | | | |
| ST ID | I | Pin (64) of IC002 | | | | | | | | | | | | | | | | | | | |
| STILL SW | O | Pin (51) of IC003 | V period pulse output ( ‾\|_\|‾\|_ ) | | | | | | | | | | | | | | | | | | |

## 3-17. SYSTEM CONTROL — SERVO (HEAD SELECTION) BLOCK INTERFACE

| | Mode | | STOP | FF | REW | REC | REC• PAUSE | AUDIO DUB | AUDIO DUB PAUSE | PB | PB• PAUSE | ×1 | – ×1 | ×2 | – ×3 | CUE (×9) | REV (– ×7) | SLOW (1/5) | SLOW (–1/5) | HII CUE (×19) | HI REV (– ×17) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Signal | I/O | Pin No. | | | | | | | | | | | | | | | | | | | |
| AUTO | O | Pin ㊳ of IC002 | L | L | L | L | L | L | L | L | L | L | L | L | L | H | H | *2 | *2 | H | H |
| GAIN CONT | O | Pin ㊶ of IC002 | H | H | H | H | H | *1 | *1 | *1 | *1 | *1 | *1 | *1 | *1 | *1 | *1 | *1 | *1 | H | H |
| COMPA CONT | O | Pin ㊷ of IC002 | H | H | H | H | H | H | L | L | L | L | L | L | L | L | L | L | L | *1 | *1 |
| SP/$\overline{LP}$ | O | Pin ㊿ of IC002 | "H" at REC or PB in SP mode. | | | | | | | | | | | | | | | | | | |
| HCHG | O | Pin ③ of IC003 | *1 | *1 | *1 | *1 | *1 | *1 | *2 | *1 | *2 | *1 | *2 | *2 | *2 | *2 | *2 | *2 | *2 | *1 | *1 |

*1. Changed by tape speed (SP/$\overline{LP}$) SP="H", LP="L"
*2. Pulse output

## 3-18. SYSTEM CONTROL — SERVO (OTHERS) BLOCK INTERFACE

| | Mode | | STOP | FF | REW | REC | REC• PAUSE | AUDIO DUB | AUDIO DUB PAUSE | PB | PB• PAUSE | ×1 | – ×1 | ×2 | – ×3 | CUE ( ×9) | REV (– ×7) | SLOW (1/5) | SLOW (–1/5) | HII CUE ( ×19) | HI REV (– ×17) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Signal | I/O | Pin No. | | | | | | | | | | | | | | | | | | | |
| JOG | O | Pin ⑨ of IC002 | L | L | L | L | L | H | H | L | H | H | H | H | H | H | H | H | H | H | H |
| CAP FG | I | Pin ㊵ of IC002 | Undefined | | | *1 | Undefined | *1 | Undefined | *1 | Undefined | *1 | *1 | *1 | *1 | *1 | *1 | *1 | *1 | *1 | *1 |
| $\overline{\text{M ATF LOCK}}$ | I | Pin (56) of IC003 | | *1 | *1 | | | | | *2 | | *2 | *2 | *2 | *2 | *1 | *1 | | | *1 | *1 |

*1. Pulse input
*2. "L" at ATF servo in phase lock

## 3-19. SYSTEM CONTROL — MD BLOCK INTERFACE

| | Mode | | STOP | FF | REW | REC | REC• PAUSE | AUDIO DUB | AUDIO DUB PAUSE | PB | PB• PAUSE | ×1 | – ×1 | ×2 | – ×3 | CUE ( ×9) | REV (– ×7) | SLOW (1/5) | SLOW (–1/5) | HII CUE ( ×19) | HI REV (– ×17) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Signal | I/O | Pin No. | | | | | | | | | | | | | | | | | | | |
| LOAD | O | Pin ⑥ of IC003 | Normally "L", "H" at tape threading | | | | | | | | | | | | | | | | | | |
| UNLOAD | O | Pin ⑦ of IC003 | Normally "L", "H" at tape unthreading | | | | | | | | | | | | | | | | | | |
| CASECON UP | O | Pin ⑧ of IC003 | Normally "L", "H" at cassette unloading | | | | | | | | | | | | | | | | | | |
| CASECON DOWN | O | Pin ⑨ of IC003 | Normally "L", "H" at cassette loading | | | | | | | | | | | | | | | | | | |
| MA – MC *2 | I | Pins ⑫ to ⑭ of IC003 | "3" | "6" | "6" | "1" | "1" | "1" | "1" | "1" | "1" | "1" | "1" | "1" | "1" | "1" | "1" | "1" | "1" | "1" | "1" |
| LA – LC *3 | I | Pins ⑯ to ⑱ of IC003 | "3" | "3" | "3" | "3" | "3" | "3" | "3" | "3" | "3" | "3" | "3" | "3" | "3" | "3" | "3" | "3" | "3" | "3" | "3" |
| CONT L | O | Pin ⑳ of IC003 | Normally "L", "H" pulse when shifting to mechanical mode | | | | | | | | | | | | | | | | | | |
| CONT R | O | Pin ㉑ of IC003 | | | | | | | | | | | | | | | | | | | |
| $\overline{\text{START}}$ | O | Pin ㉒ of IC003 | H | H | H | H | H | H | H | H | H | H | H | H | H | H | H | H | H | H | H |
| $\overline{\text{HOLD}}$ | O | Pin ㉓ of IC003 | H | L | L | H | H | H | H | H | H | H | H | H | H | H | H | H | H | H | H |
| $\overline{\text{CST IN}}$ | I | Pin ㊻ of IC003 | Normally "L", "H" at cassette ejection | | | | | | | | | | | | | | | | | | |
| $\overline{\text{CC DOWN}}$ | I | Pin ㊼ of IC003 | "H" in eject mode, "L" at cassette compartment down | | | | | | | | | | | | | | | | | | |
| $\overline{\text{TOP}}$ | I | Pin (54) of IC004 | Normally "H", "L" at tape top signal input | | | | | Can be detected that cassette is in when both signals are "H" and no cassette when "L". | | | | | | | | | | | | | |
| $\overline{\text{END}}$ | I | Pin (55) of IC004 | Normally "H", "L" at tape end signal input | | | | | | | | | | | | | | | | | | |
| SFG | I | Pins ㉙, ㉝ of IC004 | Undefined | *1 | *1 | *1 | Undefined | *1 | Undefined | *1 | Undefined | *1 | *1 | *1 | *1 | *1 | *1 | *1 | *1 | *1 | *1 |
| TFG 1 | I | Pins ㉚, ㉞ of IC004 | Undefined | *1 | *1 | *1 | Undefined | *1 | Undefined | *1 | Undefined | *1 | *1 | *1 | *1 | *1 | *1 | *1 | *1 | *1 | *1 |
| TFG 2 | I | Pin ㉜ of IC004 | Undefined | *1 | *1 | *1 | Undefined | *1 | Undefined | *1 | Undefined | *1 | *1 | *1 | *1 | *1 | *1 | *1 | *1 | *1 | *1 |
| REC PROOF | I | Pin (60) of IC004 | "L" when inserting cassette possible to record | | | | | | | | | | | | | | | | | | |
| ME/$\overline{\text{MP}}$ | I | Pin (61) of IC004 | "L" when using MP or MPHG tape | | | | | | | | | | | | | | | | | | |

*1. Pulse accompanied with reel rotation
*2. Mode switch input

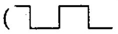
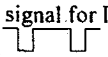
| | | "4" | "2" | "6" | "3" | "1" |
|---|---|---|---|---|---|---|
| MA | Pin ⑫ of IC003 | L | L | L | H | H |
| MB | Pin ⑬ of IC003 | L | H | H | H | L |
| MC | Pin ⑭ of IC003 | H | L | H | L | L |
| Mode switch position | | EJECT | LOAD/ UNLOAD | FF/ REW | STOP | FWD/ RVS |

*3. Loading switch input

| | | "1" | "5" | "4" | "6" | "3" |
|---|---|---|---|---|---|---|
| LA | Pin ⑯ of IC003 | H | H | L | L | H |
| LB | Pin ⑰ of IC003 | L | L | L | H | H |
| LC | Pin ⑱ of IC003 | L | H | H | H | L |
| Loading switch position | | LOADING TOP | LOADING WAIT | DRUM START | T REEL START | LOADING END |

## 3-20. MODE CONTROL MICROPROCESSER
## — PERIPHERAL CIRCUIT INTERFACE (IC001 (CXP80116) ON SE-10P BOARD)

| Signal | I/O | Pin No. | Input/Output Level |
|---|---|---|---|
| $\overline{\text{T ENS}}$ | O | 1 | Normally "H", H when shifting REVIEW → STILL |
| $\overline{\text{T-CAP ON}}$ | O | 2 | Normally "L" |
| $\overline{\text{LCD CS}}$ | O | 3 | Connect to check pin, V period pulse ( ‾\|_\|‾‾\|_\|‾ ) |
| COM/$\overline{\text{DATA}}$ | O | 4 | Connect to check pin, V period pulse ( ‾\/‾‾\/‾ ) |
| $\overline{\text{MECH CS}}$ | O | 5 | Mechanical control chip select signal, V period pulse ( ‾\|_\|‾‾\|_\|‾ ) |
| $\overline{\text{REEL CS}}$ | O | 6 | Reel control chip select signal, V period pulse ( ‾\|_\|‾‾\|_\|‾ ) |
| $\overline{\text{PCC CS}}$ | O | 7 | PCM microprocesser chip select signal, V period pulse ( ‾\|_\|‾‾\|_\|‾ ) |
| $\overline{\text{IDM CS}}$ | O | 8 | |
| RP AFREC | O | 9 | AUDIO DUB mode "H" |
| $\overline{\text{VINS}}$ | O | 10 | Video insertion signal, Normally "H" |
| $\overline{\text{LCD BSUY}}$ | I | 11 | Connect to check pin. |
| T.C /$\overline{\text{REEL}}$ | O | 12 | |
| SP/$\overline{\text{LP}}$ SW | I | 13 | |
| $\overline{\text{CASETE IN}}$ | I | 14 | "L" at cassette insertion |
| $\overline{\text{CCDOWN}}$ | I | 15 | "L" at cassette compartment down |
| L SW C | I | 16 | "H" at loading switch signal input |
| HG SW | I | 17 | MPHG tape detection input, "L" at MP or ME cassette insertion |
| $\overline{\text{POWER ON (I)}}$ | I | 18 | "L" at power ON |
| POWER ON (O) | O | 19 | "H" at power ON |
| V PB MODE | O | 20 | "H" in video circuit PB mode |
| AGC FAST | O | 21 | Normally "L" |
| HK | O | 22 | "H" at Hi8 tape insertion |
| MPHG | O | 23 | "H" at MPHG tape insertion |
| LPHK | | 24 | Not used |
| MUTE (I) | I | 25 | Normally "L", H when shifting STOP → PB mode, etc. |
| HB DET | I | 26 | "L" when playing a tape other than it in Hi8 mode |
| $\overline{\text{PCMATF}}$ | O | 27 | Normally "H" |
| $\overline{\text{ATF INH}}$ | O | 28 | |
| $\overline{\text{AFM STEREO V CONT}}$ | O | 29 | "L" at REC mode, Normally "H" at PB mode |
| $\overline{\text{RESET}}$ | O | 30 | Reset output, "L" at resetting |
| MP | I | 31 | Microprocessor mode selector terminal → not selected, Connect to GND. |
| $\overline{\text{RESET (I)}}$ | I | 32 | Reset input, "L" at resetting |
| Vss | | 33 | Connect to GND. |
| XTAL | O | 34 | Crystal connector terminal for system clock oscillation, oscillates at 16 MHz. |
| EXTAL | I | 35 | |
| —— | | 36 | Connect to UNSW5V |
| MSI | I | 37 | Serial data input terminal |
| MSO | O | 38 | Serial data output terminal |
| $\overline{\text{SCK}}$ | I | 39 | Serial data transmitting clock signal |
| $\overline{\text{MODE CS}}$ | I | 40 | Chip select signal from IC001 (main controller) on MC-81 board, V period pulse |

| Signal | I/O | PIN No. | Input/Output Level |
|---|---|---|---|
| MSI2 | I | 41 | Communication signal for IC001 (main controller) on MC-81 board, V period pulse |
| MSO2 | O | 42 | |
| $\overline{\text{SCK2}}$ | O | 43 | |
| $\overline{\text{FEEDER}}$ | I | 44 | Not used |
| TEST | I | 45 | Fixed to "H" level, Not used |
| FUNC KEY4 | I | 46 | Function key (check pin) input |
| FUNC KEY3 | I | 47 | Function key (FB-171 or FB-170 board) input |
| FUNC KEY2 | I | 48 | Function key (MB-19P, FB-170 or FB-171 board) input |
| FUNC KEY1 | I | 49 | |
| SLOW TR | I | 50 | SLOW ADJ input, Voltage according to SLOW ADJ position (0 to 5 Vdc) |
| STILL ADJ | I | 51 | STILL ADJ input, Voltage according to STILL ADJ position (0 to 5 Vdc) |
| AVSS | | 52 | Connect to GND |
| AVREF | I | 53 | Connect to UNSW5V |
| AVDD | I | 54 | |
| SW PLS | I | 55 | RF SW PULSE input, 2V period pulse (  ) |
| JOG VD INT | I | 56 | JOG VD input of digital servo (IC101 20035), Microprocesser interrupting signal,<br>V period pulse |
| $\overline{\text{AFM STEREO CONT (I)}}$ | I | 57 | Not used. Fixed to "H" level |
| —— | | 58 | |
| —— | | 59 | |
| —— | | 60 | |
| —— | | 61 | |
| —— | | 62 | |
| —— | | 63 | |
| —— | | 64 | |
| $\overline{\text{ENABLE}}$ | I | 65 | Communication signal for IC001 (main controller) on MC-81 board,<br>V period pulse (  ) |
| $\overline{\text{SP STB}}$ | O | 66 | Serial data (for lighting FB-170 and FB-171 board LEDs) transmitting strobe signal |
| —— | | 67 | |
| —— | | 68 | |
| NT/$\overline{\text{PAL}}$ | I | 69 | Fixed to "L" level |
| $\overline{\text{INTD}}$ | I | 70 | Fixed to "H" level |
| $\overline{\text{NMI}}$ | I | 71 | |
| VDD | | 72 | Connect to UNSW5V |
| VSS | | 73 | Connect to GND |
| VPP | | 74 | Connect to UNSW5V |
| —— | | 75 | |
| —— | | 76 | |
| —— | | 77 | |
| —— | | 78 | |
| SCRMBL | O | 79 | Normally "L" |
| T-CAP $\overline{\text{F}}$/R | O | 80 | Normally "L" |

## 3-21. SYSTEM CONTROL — PCM AUDIO BLOCK INTERFACE

| Signal | I/O | Pin No. | Input/Output Level |
|---|---|---|---|
| $\overline{\text{FE ON}}$ | O | Pin ㉙ of IC002 | Normally "H", "L" at REC mode or AUDIO DUB |
| FH MASK | O | Pin ㊾ of IC002 | "L" at SLOW PB mode, "H" at other PB modes |

## 3-22. SERVO—VIDEO (Y PROCESS, CHROMA PROCESS AND REC/PB HEAD AMP) BLOCK INTERFACE

| Signal | I/O | Pin No. | Input/Output Level |
|---|---|---|---|
| LP PCM REC | O | Pin ① of IC601 | Normally "L", V period "H" pulse at REC in LP mode (including AUDIO DUB) |
| SP PCM REC | O | Pin ② of IC601 | Normally "L", V period "H" pulse at REC in SP mode (including AUDIO DUB) |
| VI SWP | O | Pin ③ of IC601 | 2V period 50% duty pulse |
| $\overline{\text{SP CH SHORT}}$ | O | Pin ④ of IC601 | Normally "H", "L" at REC/PB in LP mode |
| $\overline{\text{LP CH SHORT}}$ | O | Pin ⑤ of IC601 | Normally "L", "H" at REC/PB in LP mode |
| HH DL | O | Pin ⑦ of IC601 | Normally "H", pulse at varying-speed PB |
| SP VIDEO REC | O | Pin ⑧ of IC601 | Normally "L", "H" at REC in SP mode |
| LP VIDEO REC | O | Pin ⑨ of IC601 | Normally "L", "H" at REC in LP mode |
| COMP SYNC | I | Pin ⑥ of CN004 | Positive polarity composite sync signal |
| REF V | I | Pin ⑥ of CN005 | V period "L" pulse |
| H CHG | O | Pin ⑭ of CN011 | "H" at REC/PB in SP mode, "L" at REC/PB in LP mode, pulse at varying-speed PB |

## 3-23. PCM AUDIO
## — VIDEO (Y PROCESS, CHROMA PROCESS AND REC/PB HEAD AMP) BLOCK INTERFACE

| Signal | I/O | Pin No. | Input/Output Level |
|---|---|---|---|
| $\overline{\text{M FE ON}}$ | O | Pin ① of IC601 | Normally "H", "L" at REC mode, 2V period "L" pulse at AUDIO DUB |
| RP AFTER REC | O | Pin (60) of IC601 | Normally "L", "H" at AUDIO DUB |
| D RF SWP<br>(RP RF SWP) | O | Pin ㊽ on PD-19P board | 2V period 50% duty pulse<br>Normally "L", "H" during AUDIO DUB writing, (V period "H" pulse) |
| RAMP | O | Pin ㊻ on PD-19P board | Positive polarity composite sync signal |
| COMP SYNC | O | Pin (53) on PD-19P board | Normally "L", "H" during AUDIO DUB writing, (V period "H" pulse) |
| C MUTE | O | Pin (54) on PD-19P board | Normally "L", H period "H" pulse during AUDIO DUB writing |
| HD INSERT | O | Pin (55) on PD-19P board | (H period "H" pulse)<br>Normally "L", "H" during AUDIO DUB writing (V period "H" pulse) |
| AFTER REC MASC | I | Pin (56) on PD-19P board | |

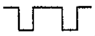
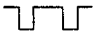
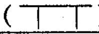
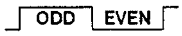
## 3-24. PCM AUDIO — SERVO BLOCK INTERFACE

| Signal | I/O | Pin No. | Input/Output Level |
|---|---|---|---|
| $\overline{\text{M FE ON}}$ | O | Pin ① of IC601 | Normally "H", "L" at REC mode,<br>2V period "L" pulse when AUDIO DUB |
| RF CONT SWP | I | Pins ㉙, ㉚ of IC601<br>Pin (58) on PD-19P board | 2V period 50% duty pulse |
| MS REF | I | Pin ⑭ on PD-19P board | V period "H" pulse |
| R AREA | O | Pin ㊼ on PD-19P board | Normally "L",<br>V period "H" pulse at REC mode (including AUDIO DUB) |
| D RF SWP | O | Pin ㊽ on PD-19P board | 2V period 50% duty pulse |
| PCM AREA | O | Pin ㊾ on PD-19P board | V period "H" pulse |
| M RF SWP | I | Pin (61) on PD-19P board | 2V period 50% duty pulse |

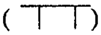
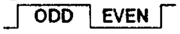
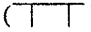
## 3-25. PCM AUDIO — AUDIO IN/OUT BLOCK INTERFACE

| Signal | I/O | Pin No. | Input/Output Level |
|---|---|---|---|
| MONO/$\overline{\text{STE}}$ OUT | O | Pin ⑪ IC601 | Normally "L", "H" when playing back monaural PCM audio signal |
| JOG AU MUTE | O | Pin ⑰ IC601 | Normally "L", "H" at varying-speed PB |
| MONO/$\overline{\text{STE}}$ IN | I | Pin ㊴ IC601 | Normally "L", "H" at microphone input or when tape played back by player is recorded in monaural PCM sound |
| PCM MUTE | O | Pin ㊾ IC601 | "H" when PCM sound is not played back and when shifting to SLOW, STILL mode |
| AFM REC/$\overline{\text{PB}}$ | O | Pin (51) IC601 | Normally "H", "L" at PB mode (including varying-speed PB) |
| AFM MUTE | O | Pin (55) IC601 | Normally "L", "H" at varying-speed PB and at mode shifting |
| $\overline{\text{AUEE}}$ PORT | O | Pin (56) IC601 | Normally "L", "H" at PB mode (including varying-speed PB) |
| MODE | O | Pin ㉙ on PD-19P board | |

## 3-26. MAIN CONTROL — VIDEO IN/OUT BLOCK INTERFACE

| Signal | I/O | Pin No. | Input/Output Level |
|---|---|---|---|
| SW1 | O | Pin ① of CN006 | "H" when input select video switch is "LINE" |
| SW2 | O | Pin ② of CN006 | "H" when input select video switch is "PLAYER" |
| SW3 | O | Pin ③ of CN006 | "H" when input select line switch is "S VIDEO" |
| SW4 | O | Pin ④ of CN006 | "L" when input select video switch is "LINE" |
| SW5 | O | Pin ⑤ of CN006 | "H" when input select video switch is "PLAYER" or still picture (FREEZE) edit mode. |
| SW6 | O | Pin ⑥ of CN006 | "H" when PLAYER/RECORDER selector of controller is "PLAYER" |
| SW7 | O | Pin ⑦ of CN006 | "L" when recorder is PB mode (including varying-speed PB) |
| SW8 | O | Pin ⑧ of CN006 | |
| SW9 | O | Pin ⑨ of CN006 | "H" when input select video switch is "PROCESSOR" or "LINE" and input select line switch is "VIDEO", however, "L" in still picture (FREEZE) edit mode |
| PLAYER/$\overline{\text{LINE}}$ | O | Pin ⑩ of CN006 | "H" when input select video switch is "PLAYER" |
| B SYNC DET | I | Pin ⑪ of CN006 | "H" at no video signal input to recorder character generator (IC028 on AN-2P board) |
| A SYNC DET | I | Pin ⑫ of CN006 | "H" at no video signal input to player/LINE character generator (IC027 on AN-2P board) |
| VOB | O | Pin ① of CN007 | "L" when title character signal is not indicating title. |
| VOC | O | Pin ② of CN007 | |
| CHA SCLK | O | Pin ⑪ of CN007 | Serial data to data screen character generator (IC027 and IC028 on AN-2P board) |
| CHA SO | O | Pin ⑫ of CN007 | |
| $\overline{\text{CSC A}}$ | O | Pin ⑧ of CN007 | Chip select signal to player/LINE character generator (IC027 on AN-2P board), V period pulse (  ) |
| $\overline{\text{CSC B}}$ | O | Pin ⑨ of CN007 | Chip select signal to recorder character generator (IC028 on AN-2P board), V period pulse (  ) |
| $\overline{\text{RST}}$ | O | Pin ⑥ of CN007 | Reset signal to data screen character generator. Normally "H" |
| TIL ON/$\overline{\text{OFF}}$ | O | Pin ⑦ of CN007 | "H" when indicating title |
| EXT $\overline{\text{VD}}$ | I | Pin ⑩ of CN007 | VD signal separated from external input video signal (  ) |
| EXT O/$\overline{\text{E}}$ | I | Pin ⑤ of CN007 | Signal for discriminating odd/even field in external input video signal ( ) |

## 3-27. MAIN CONTROL — DIGITAL PICTURE BLOCK INTERFACE

| Signal | I/O | Pin No. | Input/Output Level |
|---|---|---|---|
| REF VD | I | Pin ① of CN012 | Reference VD signal, V period "L" pulse (  ) |
| O/$\overline{\text{E}}$ | I | Pin ② of CN012 | Signal for discriminating odd/even field, 2V period pulse ( ) |
| CSD | O | Pin ③ of CN012 | Serial communication chip select signal to memory controller in digital picture circuit, V period "L" pulse (  ) |
| WEN | O | Pin ④ of CN012 | Memory writing enable signal, Normally "L" |
| SYNC DET | I | Pin ⑤ of CN012 | "L" when video signal is input to digital picture circuit |
| SCKD | O | Pin ⑥ of CN012 | Serial communication signal to memory controller of digital picture circuit |
| SO D | O | Pin ⑦ of CN012 | |
| C SYNC | I | Pin ⑨ of CN012 | Negative polarity composite sync signal for title character generator (IC005) |

## 3-28. MAIN CONTROL — PICTURE IN PICTURE BLOCK INTERFACE

| Signal | I/O | Pin No. | Input/Output Level |
|---|---|---|---|
| SUB $\overline{\text{R}}$/L | O | Pin ① of CN011 | "H" when indicating child picture on right side,<br>"L" when indicating on left side |
| $\overline{\text{STILL}}$ | O | Pin ② of CN011 | "L" when setting child picture in still picture |
| $\overline{\text{P-IN-P ON}}$ | O | Pin ③ of CN011 | "L" when indicating child picture |

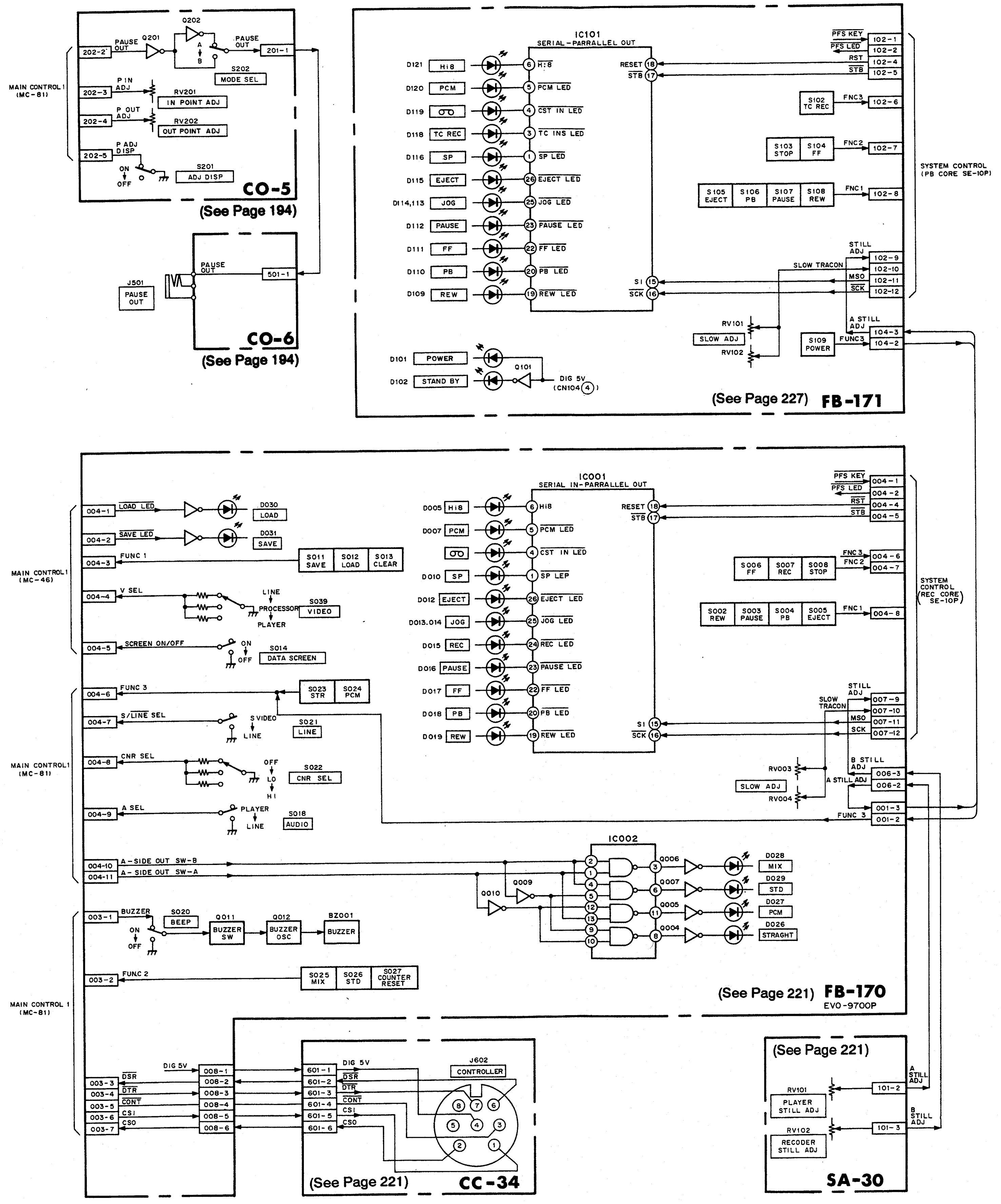
## 3-29. MAIN CONTROL — SERVO BLOCK INTERFACE

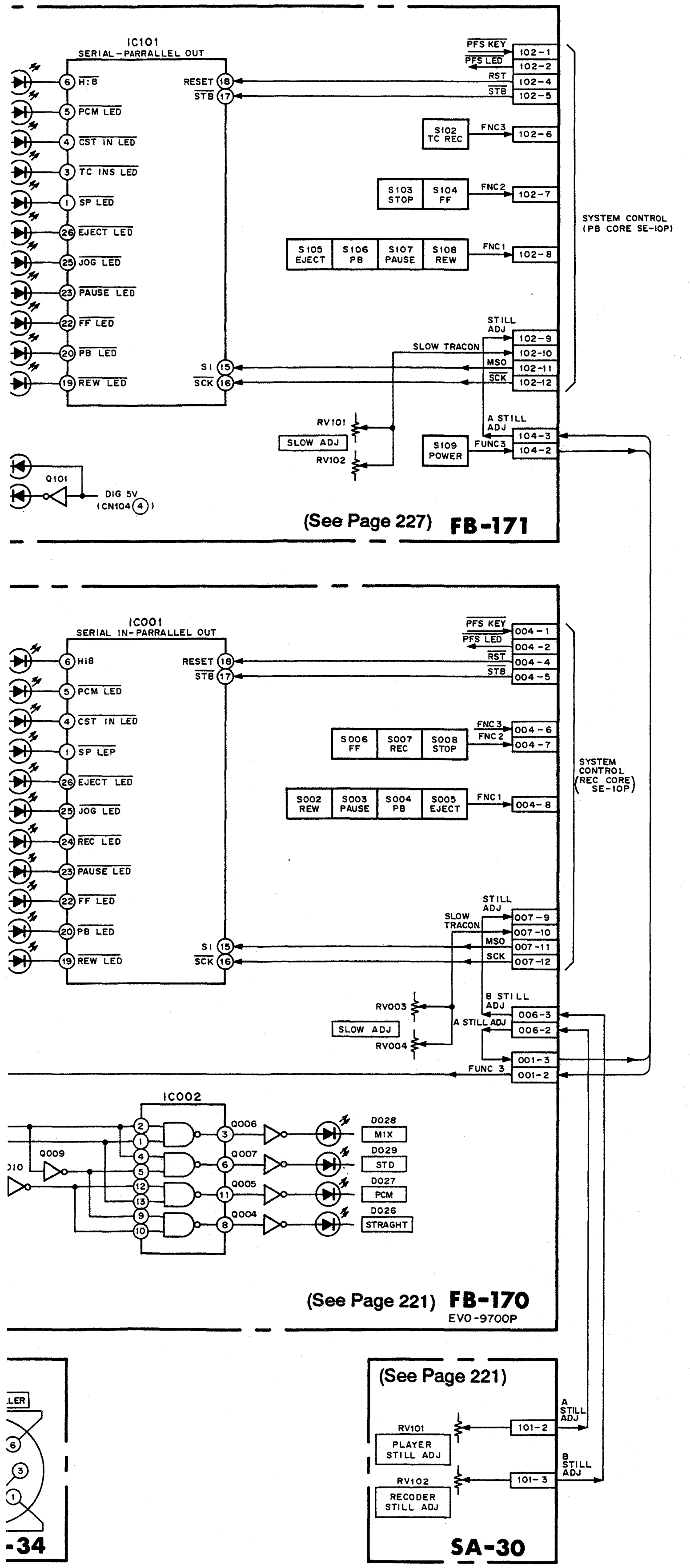
| Signal | I/O | Pin No. | Input/Output Level |
|---|---|---|---|
| M RF SWP A | I | Pin ⑥ of CN001 | RF SW pulse of player ( ▁\|▔▔\|▁▁\|▔ ) |
| $\overline{\text{REF V A}}$ | I | Pin ⑪ of CN001 | Servo reference VD signal ( ▔\|▔▔\|▔ ) for player,<br>signal delayed 18.0 msec of $\overline{\text{REF VD}}$ (Pin ① of CN012) |
| $\overline{\text{GEN LOCK A}}$ | O | Pin ⑫ of CN001 | "L" when operating by synchronizing player with $\overline{\text{REF VA}}$ signal<br>(to "L" during editing from player to recorder) |
| M RF SWP B | I | Pin ⑥ of CN002 | RF SW pulse of recorder ( ▁\|▔▔\|▁▁\|▔ ) |
| $\overline{\text{REF V B}}$ | O | Pin ⑪ of CN002 | Servo reference VD signal for recorder<br>When PLAYER input: signal delayed 108 μsec of $\overline{\text{REF VD}}$ (Pin ① of CN012)<br>When LINE input: $\overline{\text{EXT VD}}$ (Pin ⑩ of CN007) |
| $\overline{\text{GEN LOCK B}}$ | O | Pin ⑫ of CN002 | "L" when operating by synchronizing recorder with $\overline{\text{REF V B}}$ signal<br>(to "L" during editing from player to recorder) |

## 3-30. MAIN CONTROL — AUDIO IN/OUT BLOCK INTERFACE

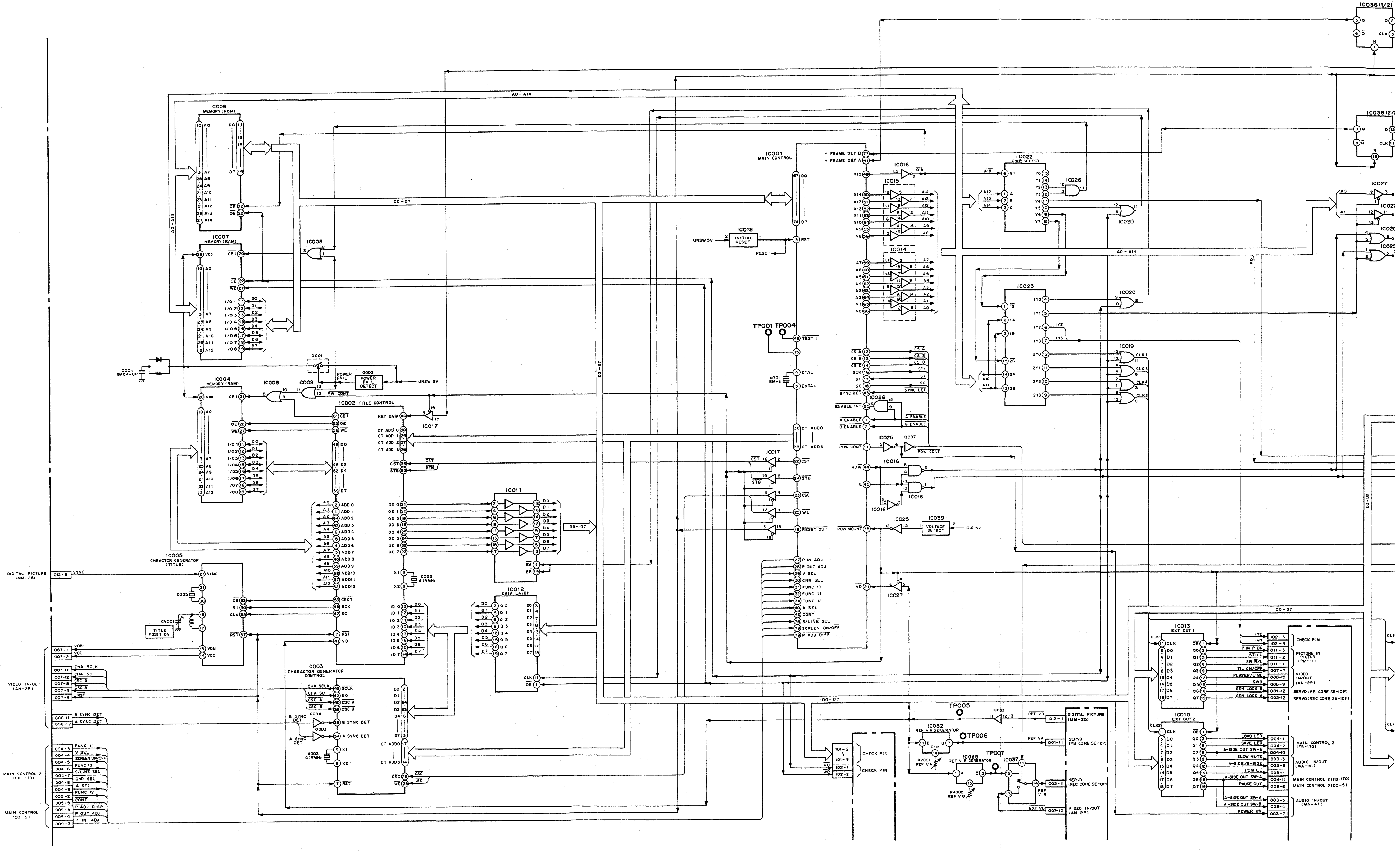
<table>
<tr><th>Signal</th><th>I/O</th><th>Pin No.</th><th>Input/Output Level</th></tr>
<tr><td>A SIDE OUT SW A</td><td>O</td><td>Pin ⑤ of CN003</td><td rowspan="2">Changed by audio output select player button
<table>
<tr><th></th><th>STRAIGHT</th><th>PCM</th><th>MIX</th><th>STD</th></tr>
<tr><td><b>A SIDE OUT SW A</b></td><td>L</td><td>H</td><td>H</td><td>L</td></tr>
<tr><td><b>B SIDE OUT SW B</b></td><td>L</td><td>L</td><td>H</td><td>H</td></tr>
</table></td></tr>
<tr><td>B SIDE OUT SW B</td><td>O</td><td>Pin ④ of CN003</td></tr>
<tr><td>A-SIDE/$\overline{\text{B-SIDE}}$</td><td>O</td><td>Pin ⑥ of CN003</td><td>"H" when PLAYER/RECORDER selector of controller is "PLAYER"</td></tr>
<tr><td>SLOW MUTE</td><td>O</td><td>Pin ③ of CN003</td><td>"H" when SLOW (slow PB picture) editing</td></tr>
<tr><td>PCM EE</td><td>O</td><td>Pin ① of CN003</td><td>"H" when inserting PCM audio</td></tr>
<tr><td>STD EE</td><td>O</td><td>Pin ② of CN003</td><td>Normally "L"</td></tr>
</table>

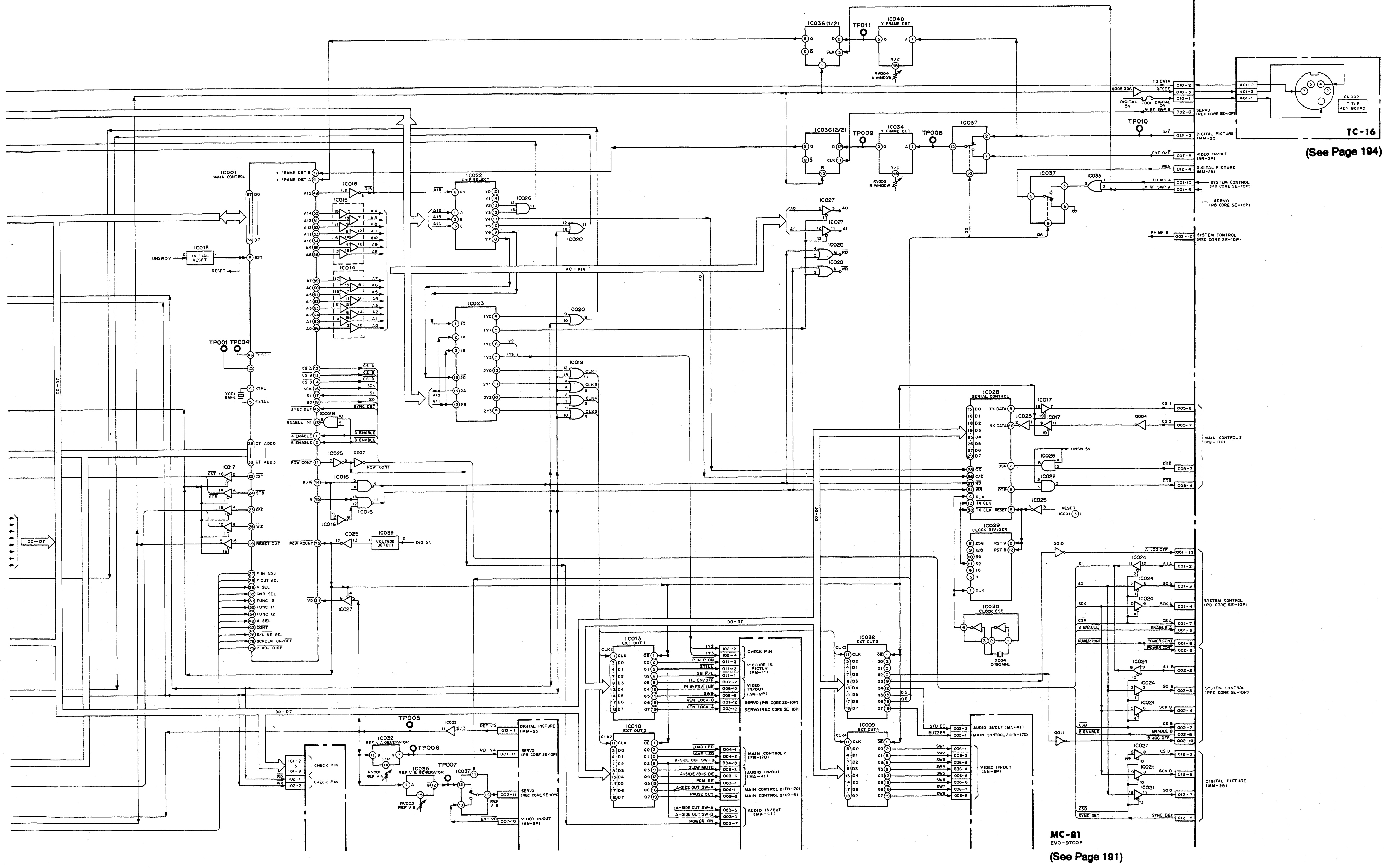
## 3-31. MAIN CONTROL BLOCK DIAGRAM (1)


CO-5
(See Page 194)
CO-6
(See Page 194)
FB-171
(See Page 227)
FB-170
(See Page 221)
EVO-9700P
CC-34
(See Page 221)
SA-30
(See Page 221)
MAIN CONTROL 1 (MC-81)
MAIN CONTROL 1 (MC-46)
SYSTEM CONTROL (PB CORE SE-10P)
SYSTEM CONTROL (REC CORE SE-10P)
IC101 SERIAL-PARRALLEL OUT
IC001 SERIAL IN-PARRALLEL OUT
IC002
Q201
Q202
PAUSE OUT
MODE SEL
S202
RV201 IN POINT ADJ
RV202 OUT POINT ADJ
S201 ADJ DISP
J501 PAUSE OUT
D121 HI8
D120 PCM
D119
D118 TC REC
D116 SP
D115 EJECT
D114,113 JOG
D112 PAUSE
D111 FF
D110 PB
D109 REW
D101 POWER
D102 STAND BY
Q101
DIG 5V (CN104 ④)
RESET
STB
SI
SCK
PFS KEY
PFS LED
RST
S102 TC REC
S103 STOP
S104 FF
S105 EJECT
S106 PB
S107 PAUSE
S108 REW
FNC1
FNC2
FNC3
STILL ADJ
SLOW TRACON
MSO
RV101
SLOW ADJ
RV102
A STILL ADJ
S109 POWER
D030 LOAD
D031 SAVE
LOAD LED
SAVE LED
FUNC 1
S011 SAVE
S012 LOAD
S013 CLEAR
V SEL
LINE
PROCESSOR
PLAYER
S039 VIDEO
SCREEN ON/OFF
S014 DATA SCREEN
FUNC 3
S023 STR
S024 PCM
S/LINE SEL
S VIDEO
S021 LINE
CNR SEL
S022 CNR SEL
A SEL
S018 AUDIO
D005 HI8
D007 PCM
D010 SP
D012 EJECT
D013,014 JOG
D015 REC
D016 PAUSE
D017 FF
D018 PB
D019 REW
S006 FF
S007 REC
S008 STOP
S002 REW
S003 PAUSE
S004 PB
S005 EJECT
RV003
RV004
B STILL ADJ
A-SIDE OUT SW-B
A-SIDE OUT SW-A
Q006
Q007
Q005
Q004
Q009
Q010
D028 MIX
D029 STD
D027 PCM
D026 STRAGHT
BUZZER
S020 BEEP
Q011 BUZZER SW
Q012 BUZZER OSC
BZ001 BUZZER
FUNC 2
S025 MIX
S026 STD
S027 COUNTER RESET
DIG 5V
DSR
DTR
CONT
CSI
CSO
J602 CONTROLLER
RV101 PLAYER STILL ADJ
RV102 RECODER STILL ADJ
A STILL ADJ
B STILL ADJ

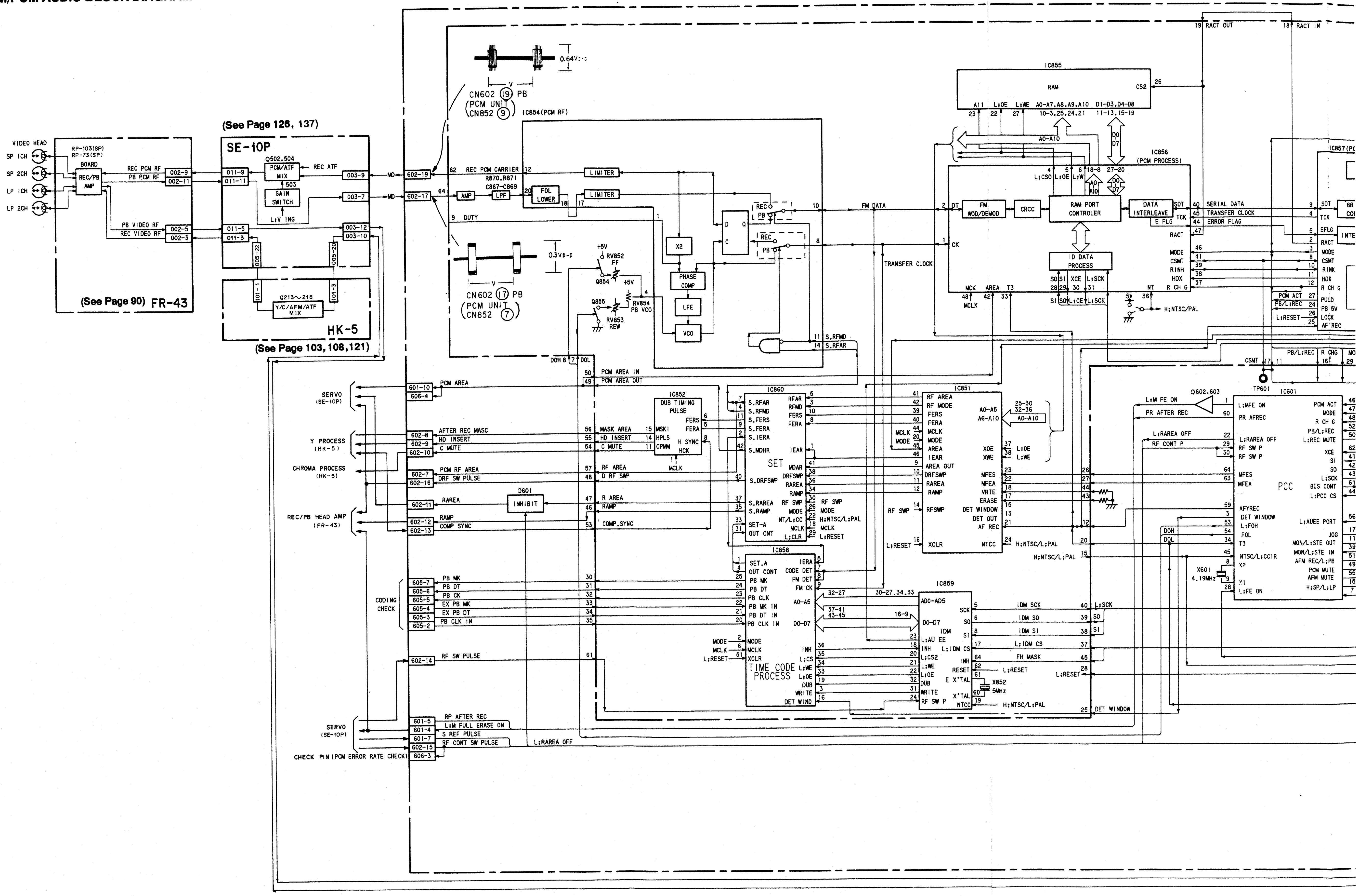

IC101
SERIAL-PARRALLEL OUT
H:8
PCM LED
CST IN LED
TC INS LED
SP LED
EJECT LED
JOG LED
PAUSE LED
FF LED
PB LED
REW LED
RESET
STB
SI
SCK
PFS KEY
PFS LED
RST
STB
102-1
102-2
102-4
102-5
S102
TC REC
FNC3
102-6
S103
STOP
S104
FF
FNC2
102-7
S105
EJECT
S106
PB
S107
PAUSE
S108
REW
FNC1
102-8
SYSTEM CONTROL
(PB CORE SE-10P)
STILL
ADJ
SLOW TRACON
MSO
SCK
102-9
102-10
102-11
102-12
RV101
SLOW ADJ
RV102
A STILL
ADJ
S109
POWER
FUNC3
104-3
104-2
Q101
DIG 5V
(CN104 ④)
(See Page 227)
FB-171
IC001
SERIAL IN-PARRALLEL OUT
H18
PCM LED
CST IN LED
SP LEP
EJECT LED
JOG LED
REC LED
PAUSE LED
FF LED
PB LED
REW LED
004-1
004-2
004-4
004-5
S006
FF
S007
REC
S008
STOP
FNC3
FNC2
004-6
004-7
SYSTEM
CONTROL
(REC CORE
SE-10P)
S002
REW
S003
PAUSE
S004
PB
S005
EJECT
FNC1
004-8
SLOW
TRACON
007-9
007-10
007-11
007-12
B STILL
ADJ
RV003
SLOW ADJ
RV004
A STILL ADJ
006-3
006-2
001-3
001-2
FUNC 3
IC002
Q009
Q006
Q007
Q005
Q004
D028
MIX
D029
STD
D027
PCM
D026
STRAGHT
(See Page 221)
FB-170
EVO-9700P
(See Page 221)
RV101
PLAYER
STILL ADJ
RV102
RECODER
STILL ADJ
101-2
101-3
A
STILL
ADJ
B
STILL
ADJ
SA-30
-34

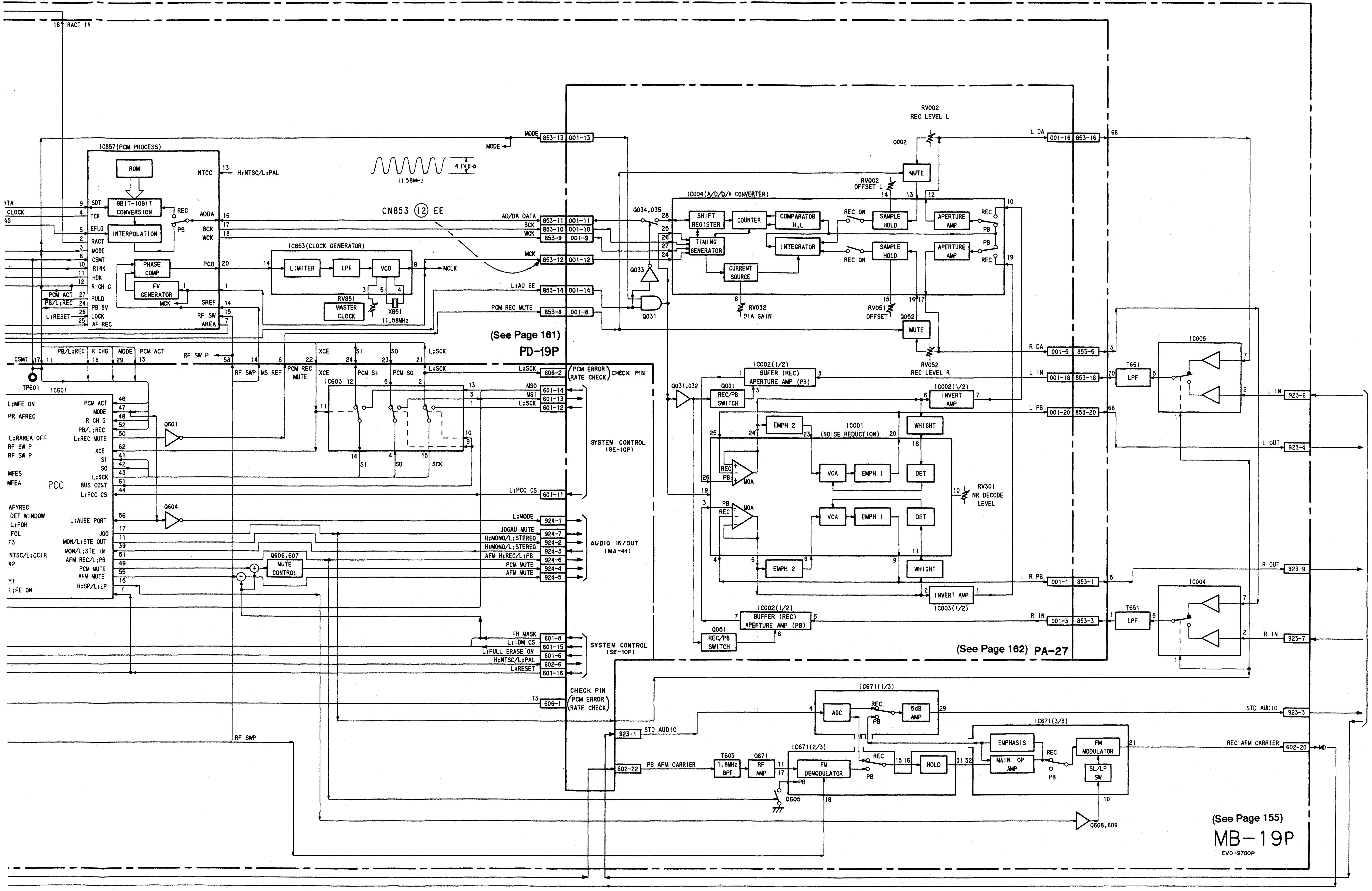
## 3-32. MAIN CONTROL BLOCK DIAGRAM (2)


IC001 MAIN CONTROL
IC002 TITLE CONTROL
IC003 CHARACTOR GENERATOR CONTROL
IC004 MEMORY (RAM)
IC005 CHRACTOR GENERATOR (TITLE)
IC006 MEMORY (ROM)
IC007 MEMORY (RAM)
IC008
IC010 EXT OUT 2
IC011
IC012 DATA LATCH
IC013 EXT OUT 1
IC014
IC015
IC016
IC017
IC018 INITIAL RESET
IC019
IC020
IC022 CHIP SELECT
IC023
IC025
IC026
IC027
IC032 REF V A GENERATOR
IC033
IC035 REF V B GENERATOR
IC036 (1/2)
IC036 (2/2)
IC037
IC039 VOLTAGE DETECT
Q001
Q002 POWER FAIL DETECT
Q003
Q004
Q007
X001 8MHz
X002 4.19MHz
X003 4.19MHz
X005
CV001
TITLE POSITION
C001 BACK-UP
UNSW 5V
DIG 5V
TP001
TP004
TP005
TP006
TP007
RV001 REF V A
RV002 REF V B
A0 – A14
D0 – D7
DIGITAL PICTURE (MM-25)
VIDEO IN/OUT (AN-2P)
MAIN CONTROL 2 (FB-170)
MAIN CONTROL (CC-5)
CHECK PIN
PICTURE IN PICTUR (PM-11)
SERVO (PB CORE SE-10P)
SERVO (REC CORE SE-10P)
AUDIO IN/OUT (MA-41)
MAIN CONTROL 2 (FB-170)
MAIN CONTROL 2 (CC-5)

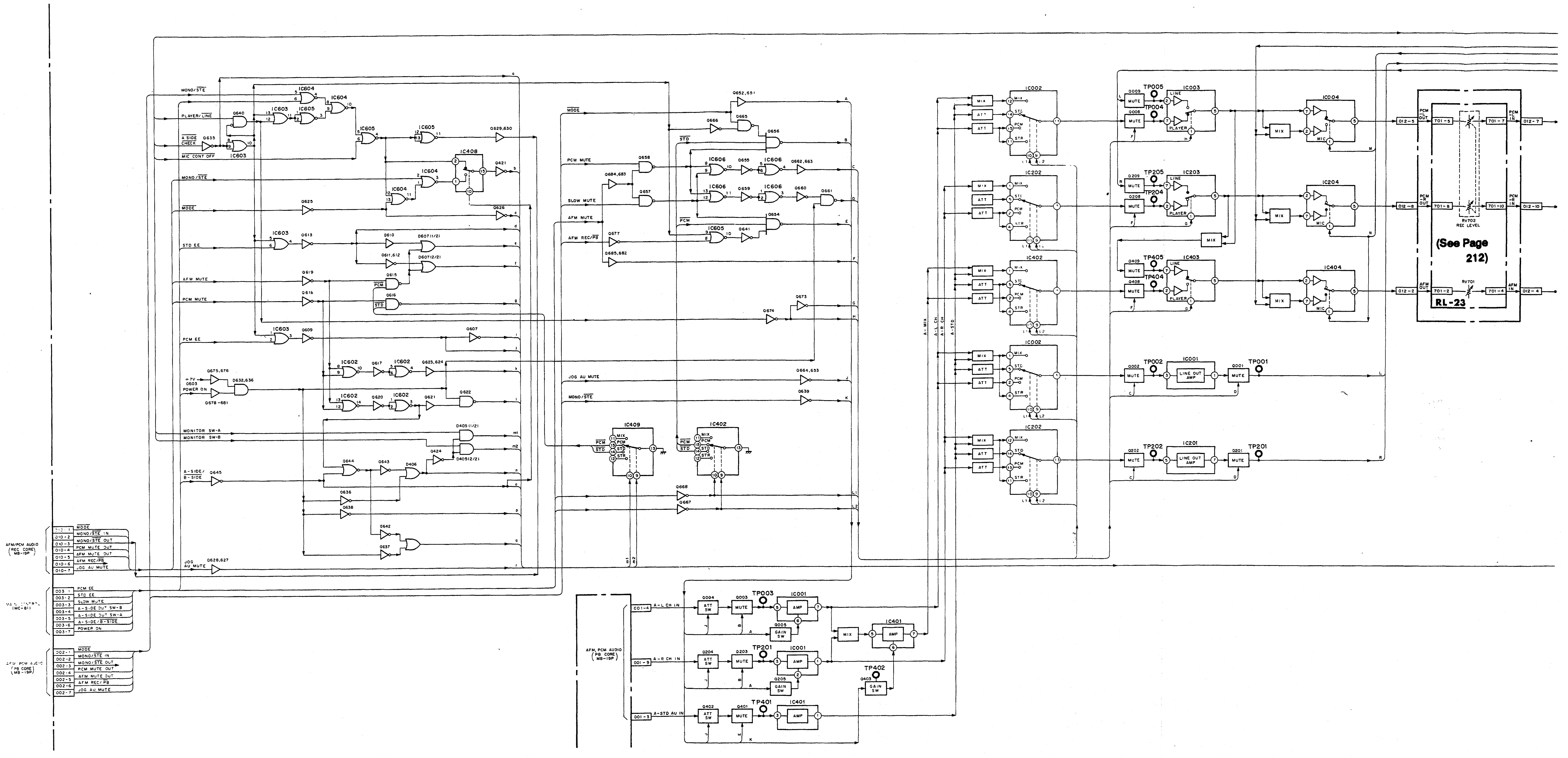

IC001 MAIN CONTROL
IC018 INITIAL RESET
UNSW 5V
RESET
TP001
TP004
X001 8MHz
IC014
IC015
IC016
IC017
IC022 CHIP SELECT
IC023
IC019
IC020
IC026
IC027
IC025
IC039 VOLTAGE DETECT
DIG 5V
IC036(1/2)
IC036(2/2)
IC040 Y FRAME DET
IC034 Y FRAME DET
IC037
IC033
RV004 A WINDOW
RV003 B WINDOW
TP011
TP009
TP008
TP010
IC028 SERIAL CONTROL
IC029 CLOCK DIVIDER
IC030 CLOCK OSC
X004 0195MHz
IC024
IC021
IC013 EXT OUT 1
IC010 EXT OUT 2
IC038 EXT OUT 3
IC009 EXT OUT 4
IC032 REF V A GENERATOR
IC035 REF V B GENERATOR
RV001 REF V A
RV002 REF V B
TP005
TP006
TP007
D0 - D7
A0 - A14
CHECK PIN
PICTURE IN PICTUR (PM-111)
VIDEO IN/OUT (AN-2P)
SERVO (PB CORE SE-10P)
MAIN CONTROL 2 (FB-170)
AUDIO IN/OUT (MA-41)
DIGITAL PICTURE (MM-25)
SYSTEM CONTROL (PB CORE SE-10P)
SYSTEM CONTROL (REC CORE SE-10P)
SERVO (REC CORE SE-10P)
CN402 TITLE KEY BOARD
TC-16
(See Page 194)
MC-81
EVO-9700P
(See Page 191)

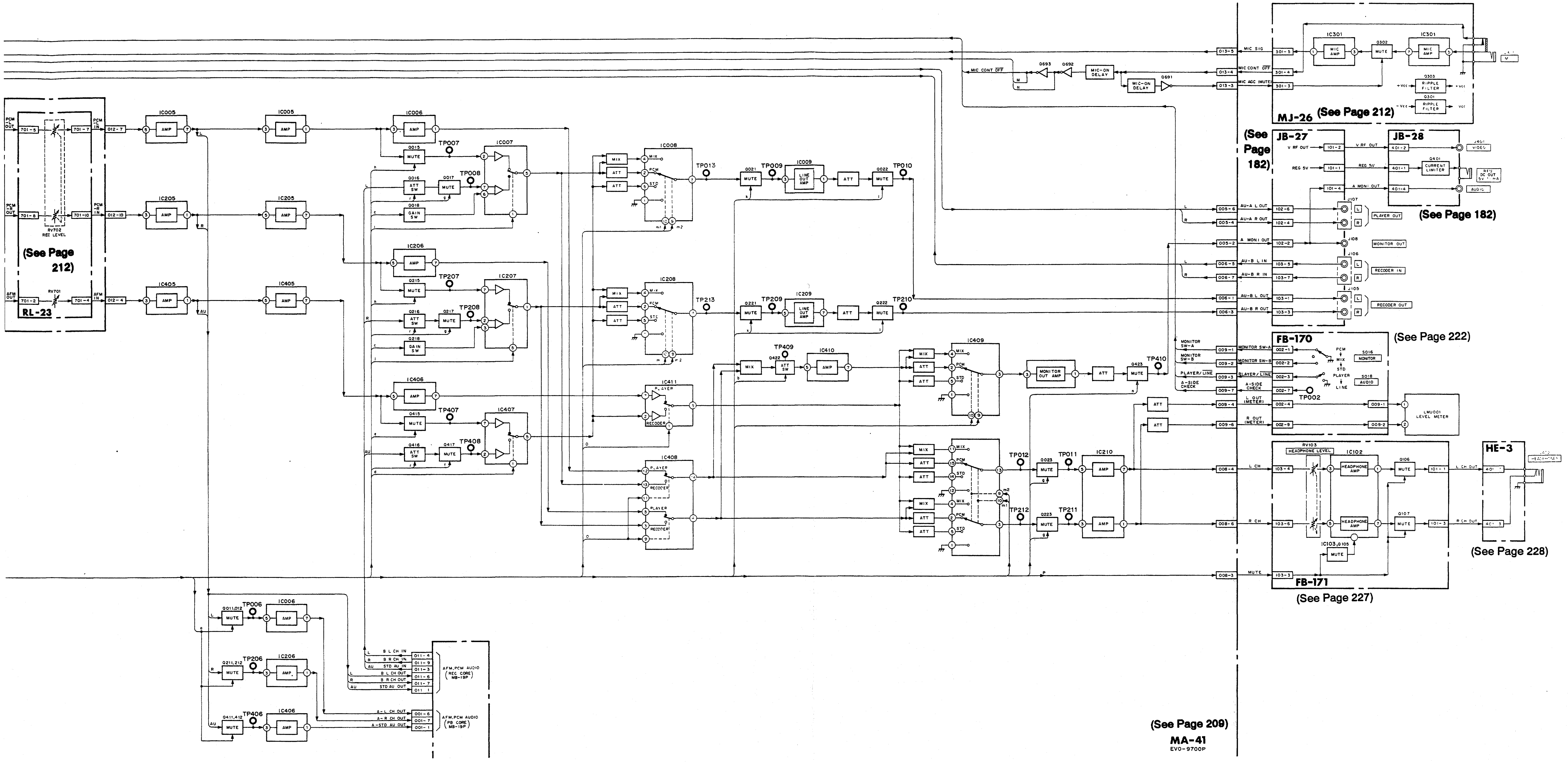
## 3-33. AFM/PCM AUDIO BLOCK DIAGRAM


VIDEO HEAD
SP 1CH
SP 2CH
LP 1CH
LP 2CH
RP-103(SP)
RP-73(SP)
BOARD
REC/PB AMP
REC PCM RF
PB PCM RF
PB VIDEO RF
REC VIDEO RF
(See Page 90) FR-43
(See Page 126, 137)
SE-10P
Q502,504
PCM/ATF MIX
REC ATF
GAIN SWITCH
L:V ING
Q213~218
Y/C/AFM/ATF MIX
HK-5
(See Page 103,108,121)
CN602 ⑲ PB
(PCM UNIT)
CN852 ⑨
0.64Vp-p
CN602 ⑰ PB
(PCM UNIT)
CN852 ⑦
0.3Vp-p
IC854(PCM RF)
REC PCM CARRIER
R870,R871
C867-C869
AMP
LPF
FOL LOWER
LIMITER
DUTY
X2
PHASE COMP
LFE
VCO
RV852 FF
RV854 PB VCO
RV853 REW
FM DATA
TRANSFER CLOCK
S.RFMD
S.RFAR
DOH
DOL
PCM AREA IN
PCM AREA OUT
IC855
RAM
IC856 (PCM PROCESS)
FM MOD/DEMOD
CRCC
RAM PORT CONTROLER
DATA INTERLEAVE
ID DATA PROCESS
SERIAL DATA
TRANSFER CLOCK
ERROR FLAG
RACT OUT
RACT IN
IC857(PC
H:NTSC/PAL
SERVO (SE-10P)
Y PROCESS (HK-5)
CHROMA PROCESS (HK-5)
REC/PB HEAD AMP (FR-43)
PCM AREA
AFTER REC MASC
HD INSERT
C MUTE
PCM RF AREA
DRF SW PULSE
RAREA
RAMP
COMP SYNC
D601
INHIBIT
IC852
DUB TIMING PULSE
IC860
SET
IC851
IC858
TIME CODE PROCESS
IC859
X852 5MHz
CODING CHECK
PB MK
PB DT
PB CK
EX PB MK
EX PB DT
PB CLK IN
RF SW PULSE
RP AFTER REC
L:M FULL ERASE ON
S REF PULSE
RF CONT SW PULSE
L:RAREA OFF
CHECK PIN (PCM ERROR RATE CHECK)
Q602,603
L:M FE ON
PR AFTER REC
TP601
IC601
PCC
X601 4.19MHz
IDM SCK
IDM SO
IDM SI
L:IDM CS
FH MASK
L:RESET
H:NTSC/L:PAL
DET WINDOW

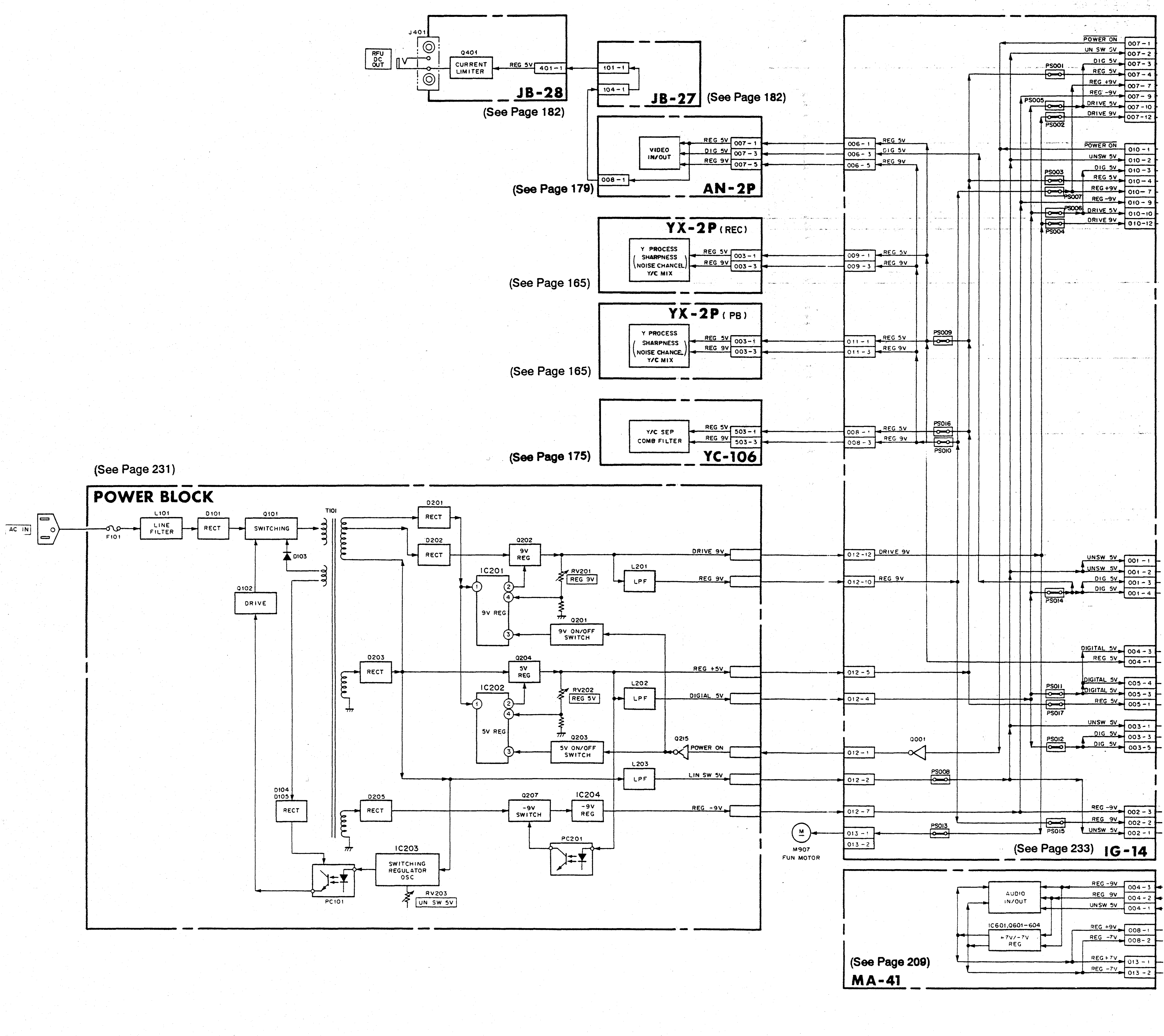

IC857(PCM PROCESS)
ROM
8BIT-10BIT CONVERSION
INTERPOLATION
PHASE COMP
FV GENERATOR
NTCC
H:NTSC/L:PAL
ADDA
BCK
WCK
PCO
SREF
RF SW
AREA
REC
PB
IC853(CLOCK GENERATOR)
LIMITER
LPF
VCO
MCLK
RV851 MASTER CLOCK
X851 11.58MHz
11.58MHz
4.1Vp-p
CN853 ⑫ EE
MODE
AD/DA DATA
BCK
WCK
MCK
L:AU EE
PCM REC MUTE
853-13
001-13
853-11
001-11
853-10
001-10
853-9
001-9
853-12
001-12
853-14
001-14
853-8
001-8
(See Page 161)
PD-19P
L:SCK
606-2
(PCM ERROR RATE CHECK) CHECK PIN
IC603
XCE
SI
SO
SCK
MSO
MSI
601-14
601-13
601-12
SYSTEM CONTROL (SE-10P)
L:PCC CS
601-11
L:MODE
924-1
JOGAU MUTE
924-7
H:MONO/L:STEREO
924-2
924-3
AFM H:REC/L:PB
924-6
PCM MUTE
924-4
AFM MUTE
924-5
AUDIO IN/OUT (MA-41)
Q606,607 MUTE CONTROL
IC601
PCC
TP601
CSMT
L:MFE ON
PR AFREC
L:RAREA OFF
RF SW P
MFES
MFEA
AFYREC
DET WINDOW
L:FOH
FOL
NTSC/L:CCIR
PCM ACT
MODE
R CH G
PB/L:REC
L:REC MUTE
XCE
SI
SO
L:SCK
BUS CONT
L:PCC CS
L:AUEE PORT
JOG
MON/L:STE OUT
MON/L:STE IN
AFM REC/L:PB
PCM MUTE
AFM MUTE
H:SP/L:LP
Q601
Q604
SDT
TCK
EFLG
RACT
CSMT
RINK
HDK
R CH G
PULD
PB 5V
LOCK
AF REC
PCM ACT
PB/L:REC
L:RESET
RACT IN
RF SWP
MS REF
PCM REC MUTE
RF SW P
FH MASK
601-8
L:IDM CS
601-15
L:FULL ERASE ON
601-6
H:NTSC/L:PAL
602-6
L:RESET
601-16
SYSTEM CONTROL (SE-10P)
T3
606-1
CHECK PIN (PCM ERROR RATE CHECK)
IC004(A/D/D/A CONVERTER)
Q034,035
Q033
Q031
SHIFT REGISTER
COUNTER
COMPARATOR H.L
TIMING GENERATOR
INTEGRATOR
CURRENT SOURCE
SAMPLE HOLD
APERTURE AMP
REC ON
RV002 REC LEVEL L
RV002 OFFSET L
Q002
MUTE
RV032 D/A GAIN
RV051 OFFSET
Q052
RV052 REC LEVEL R
L DA
001-16
853-16
R DA
001-5
853-5
L IN
001-18
853-18
L PB
001-20
853-20
R PB
001-1
853-1
R IN
001-3
853-3
Q031,032
Q001 REC/PB SWITCH
IC002(1/2) BUFFER (REC) APERTURE AMP (PB)
IC002(1/2) INVERT AMP
IC001 (NOISE REDUCTION)
EMPH 2
EMPH 1
VCA
DET
WHIGHT
MOA
RV301 NR DECODE LEVEL
INVERT AMP
IC003(1/2)
Q051 REC/PB SWITCH
(See Page 162) PA-27
IC005
IC004
T661 LPF
T651 LPF
L IN
923-6
L OUT
923-4
R OUT
923-9
R IN
923-7
AUDIO IN/OUT (MA-41)
IC671(1/3)
AGC
5dB AMP
STD AUDIO
923-3
923-1
STD AUDIO
IC671(3/3)
EMPHASIS
MAIN OP AMP
FM MODULATOR
SL/LP SW
REC AFM CARRIER
602-20
MD
602-22
PB AFM CARRIER
T603 1.8MHz BPF
Q671 RF AMP
IC671(2/3)
FM DEMODULATOR
HOLD
Q605
Q608,609
RF SWP
(See Page 155)
MB-19P
EVO-9700P

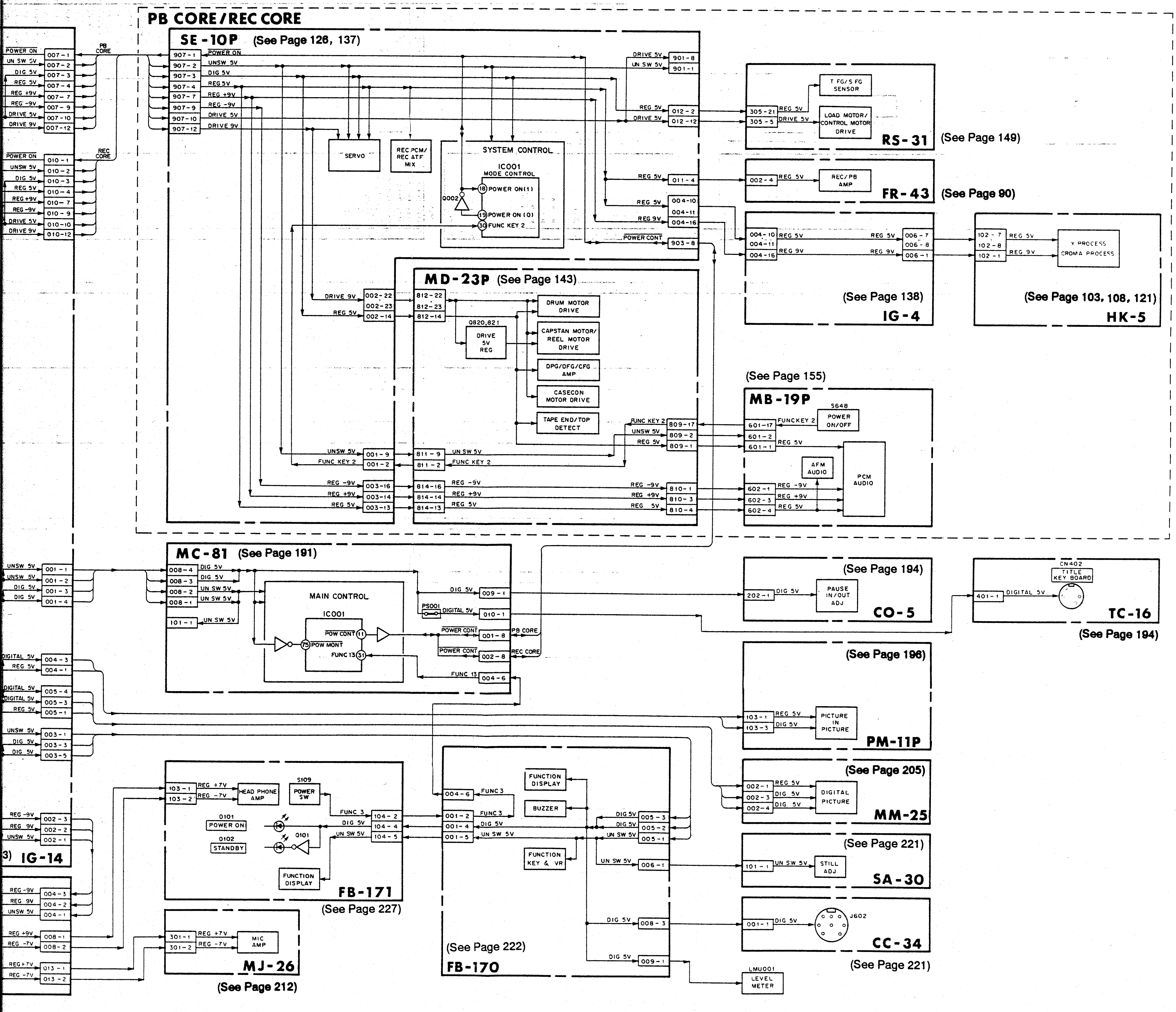
## 3-34. AUDIO IN/OUT BLOCK DIAGRAM


AFM/PCM AUDIO (REC CORE MB-19P)
010-1 MODE
010-2 MONO/STE IN
010-3 MONO/STE OUT
010-4 PCM MUTE OUT
010-5 AFM MUTE OUT
010-6 AFM REC/PB
010-7 JOG AU MUTE
MAIN CONTROL (MC-81)
003-1 PCM EE
003-2 STD EE
003-3 SLOW MUTE
003-4 A-SIDE OUT SW-B
003-5 A-SIDE OUT SW-A
003-6 A-SIDE/B-SIDE
003-7 POWER ON
AFM PCM AUDIO (PB CORE MB-19P)
002-1 MODE
002-2 MONO/STE IN
002-3 MONO/STE OUT
002-4 PCM MUTE OUT
002-5 AFM MUTE OUT
002-6 AFM REC/PB
002-7 JOG AU MUTE
MONO/STE
PLAYER/LINE
A SIDE CHECK
MIC CONT OFF
IC603
IC604
IC605
IC606
IC408
IC602
IC409
IC402
Q640
Q635
Q629,630
Q421
Q625
Q626
Q613
Q610
Q607(1/2)
Q607(2/2)
Q611,612
Q615
Q616
Q619
Q61b
Q609
Q607
Q617
Q623,624
Q620
Q621
Q622
Q675,676
Q632,636
Q678-681
Q405(1/2)
Q405(2/2)
Q424
Q644
Q643
Q406
Q636
Q638
Q642
Q637
Q645
Q628,627
MODE
STD EE
AFM MUTE
PCM MUTE
PCM EE
+7V Q603
POWER ON
MONITOR SW-A
MONITOR SW-B
A-SIDE/B-SIDE
JOG AU MUTE
PCM
STD
MIX
STR
PCM MUTE
SLOW MUTE
AFM MUTE
AFM REC/PB
Q652,651
Q666
Q665
Q656
Q658
Q684,683
Q657
Q655
Q662,663
Q659
Q660
Q661
Q654
Q641
Q677
Q685,682
Q674
Q673
Q664,653
Q639
Q668
Q667
m1
m2
L1
L2
A-MIX
A-L CH
A-R CH
A-STD
IC002
IC202
IC402
MIX
ATT
STD
TP005
TP004
Q009
Q008
IC003
LINE
PLAYER
MUTE
TP205
TP204
Q209
Q208
IC203
TP405
TP404
Q409
Q408
IC403
IC004
IC204
IC404
MIC
TP002
Q002
IC001
LINE OUT AMP
Q001
TP001
TP202
Q202
IC201
Q201
TP201
012-5
PCM -L OUT
701-5
701-7
PCM -L IN
012-7
012-8
PCM -R OUT
701-8
701-10
PCM -R IN
012-10
RV702 REC LEVEL
(See Page 212)
012-2
AFM OUT
701-2
RV701
701-4
AFM IN
012-4
RL-23
AFM, PCM AUDIO (PB CORE MB-19P)
C01-4 A-L CH IN
001-9 A-R CH IN
001-3 A-STD AU IN
Q004
ATT SW
Q003
TP003
AMP
Q005
GAIN SW
Q204
Q203
Q205
Q402
Q401
TP401
IC401
TP402
Q403


RL-23
(See Page 212)
RV702 REC LEVEL
RV701
IC005
IC205
IC405
IC006
IC206
IC406
IC007
IC207
IC407
IC008
IC208
IC408
IC411
IC009
IC209
IC409
IC410
IC210
TP006
TP007
TP008
TP009
TP010
TP012
TP013
TP011
TP206
TP207
TP208
TP209
TP210
TP211
TP212
TP213
TP406
TP407
TP408
TP409
TP410
TP002
AMP
MUTE
ATT
MIX
ATT SW
GAIN SW
LINE OUT AMP
MONITOR OUT AMP
MIC-ON DELAY
MJ-26 (See Page 212)
IC301
MIC AMP
RIPPLE FILTER
(See Page 182)
JB-27
JB-28
CURRENT LIMITER
PLAYER OUT
MONITOR OUT
RECODER IN
RECODER OUT
(See Page 182)
FB-170
(See Page 222)
MONITOR
AUDIO
LM001 LEVEL METER
FB-171
(See Page 227)
HEADPHONE LEVEL
HEADPHONE AMP
HE-3
(See Page 228)
AFM, PCM AUDIO (REC CORE) MB-19P
AFM, PCM AUDIO (PB CORE) MB-19P
(See Page 209)
MA-41
EVO-9700P

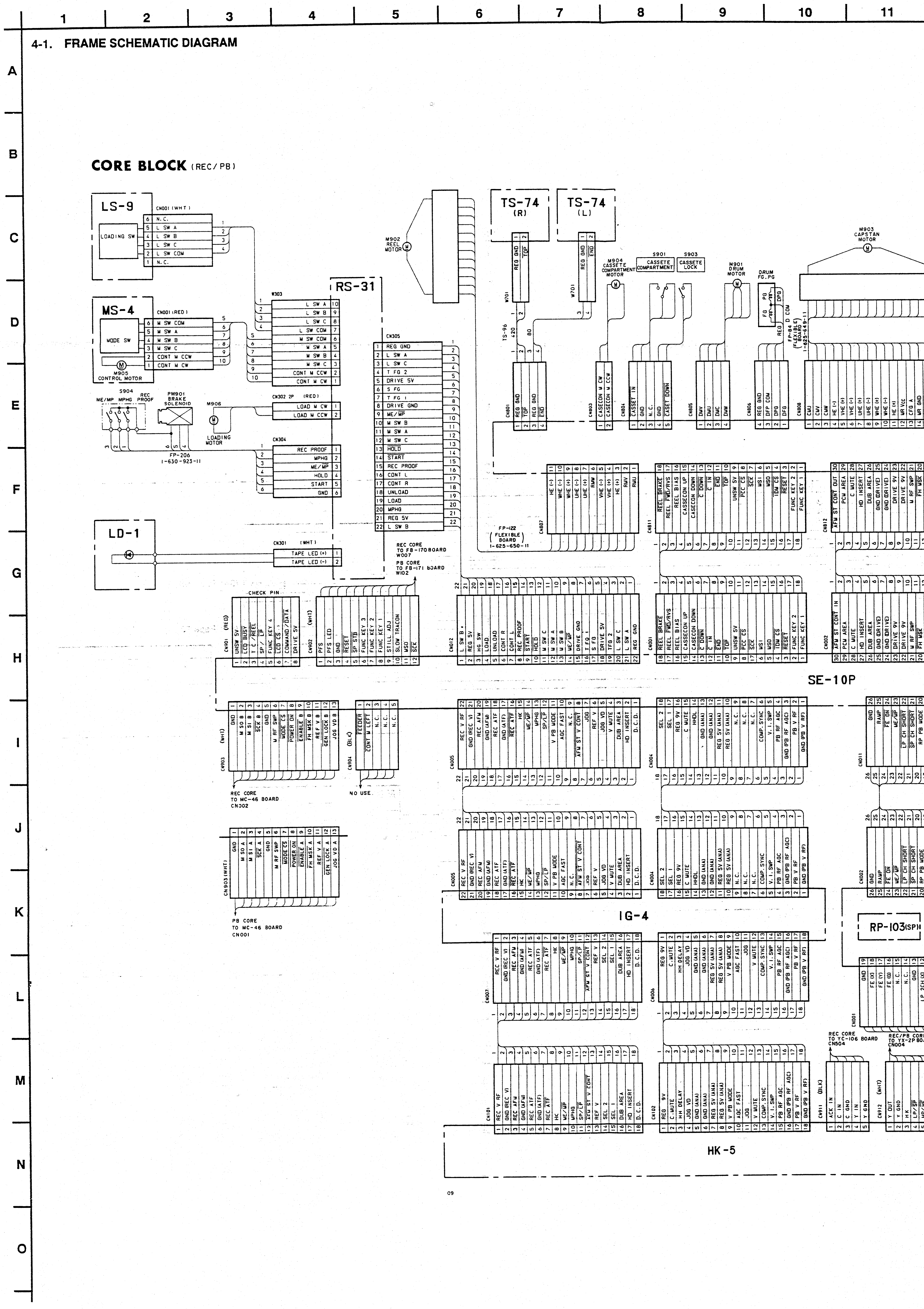
## 3-35. POWER BLOCK DIAGRAM


JB-28
(See Page 182)
J401
RFU DC OUT
Q401
CURRENT LIMITER
REG 5V
401-1
JB-27
(See Page 182)
101-1
104-1
AN-2P
(See Page 179)
VIDEO IN/OUT
REG 5V
DIG 5V
REG 9V
007-1
007-3
007-5
008-1
YX-2P (REC)
(See Page 165)
Y PROCESS
SHARPNESS
NOISE CHANCEL
Y/C MIX
REG 5V
REG 9V
003-1
003-3
YX-2P (PB)
(See Page 165)
Y PROCESS
SHARPNESS
NOISE CHANCEL
Y/C MIX
REG 5V
REG 9V
003-1
003-3
YC-106
(See Page 175)
Y/C SEP
COMB FILTER
REG 5V
REG 9V
503-1
503-3
POWER BLOCK
(See Page 231)
AC IN
F101
L101
LINE FILTER
D101
RECT
Q101
SWITCHING
T101
D103
Q102
DRIVE
D104
D105
RECT
PC101
IC203
SWITCHING REGULATOR OSC
RV203
UN SW 5V
D201
RECT
D202
RECT
Q202
9V REG
IC201
9V REG
RV201
REG 9V
Q201
9V ON/OFF SWITCH
L201
LPF
DRIVE 9V
REG 9V
D203
RECT
Q204
5V REG
IC202
5V REG
RV202
REG 5V
Q203
5V ON/OFF SWITCH
L202
LPF
REG +5V
DIGIAL 5V
Q215
POWER ON
L203
LPF
LIN SW 5V
D205
RECT
Q207
-9V SWITCH
IC204
-9V REG
PC201
REG -9V
IG-14
(See Page 233)
006-1
006-3
006-5
REG 5V
DIG 5V
REG 9V
009-1
009-3
011-1
011-3
008-1
008-3
012-12
012-10
012-5
012-4
012-1
012-2
012-7
013-1
013-2
DRIVE 9V
REG 9V
Q001
M907
FUN MOTOR
PS001
PS002
PS003
PS004
PS005
PS006
PS007
PS008
PS009
PS010
PS011
PS012
PS013
PS014
PS015
PS016
PS017
POWER ON
UN SW 5V
DIG 5V
REG 5V
REG +9V
REG -9V
DRIVE 5V
DRIVE 9V
007-1
007-2
007-3
007-4
007-7
007-9
007-10
007-12
POWER ON
UNSW 5V
DIG 5V
REG 5V
REG +9V
REG -9V
DRIVE 5V
DRIVE 9V
010-1
010-2
010-3
010-4
010-7
010-9
010-10
010-12
UNSW 5V
UNSW 5V
DIG 5V
DIG 5V
001-1
001-2
001-3
001-4
DIGITAL 5V
REG 5V
004-3
004-1
DIGITAL 5V
DIGITAL 5V
REG 5V
005-4
005-3
005-1
UNSW 5V
DIG 5V
DIG 5V
003-1
003-3
003-5
REG -9V
REG 9V
UNSW 5V
002-3
002-2
002-1
MA-41
(See Page 209)
AUDIO IN/OUT
IC601,Q601-604
+7V/-7V REG
REG -9V
REG 9V
UNSW 5V
004-3
004-2
004-1
REG +9V
REG -7V
008-1
008-2
REG +7V
REG -7V
013-1
013-2


PB CORE/REC CORE
SE-10P (See Page 126, 137)
SERVO
REC PCM/ REC ATF MIX
SYSTEM CONTROL
IC001 MODE CONTROL
POWER ON(1)
POWER ON (0)
FUNC KEY 2
Q002
RS-31 (See Page 149)
T FG/S FG SENSOR
LOAD MOTOR/ CONTROL MOTOR DRIVE
FR-43 (See Page 90)
REC/PB AMP
IG-4 (See Page 138)
HK-5 (See Page 103, 108, 121)
Y PROCESS CROMA PROCESS
MD-23P (See Page 143)
DRUM MOTOR DRIVE
Q820,821
DRIVE 5V REG
CAPSTAN MOTOR/ REEL MOTOR DRIVE
DPG/DFG/CFG AMP
CASECON MOTOR DRIVE
TAPE END/TOP DETECT
MB-19P (See Page 155)
S648 POWER ON/OFF
AFM AUDIO
PCM AUDIO
MC-81 (See Page 191)
MAIN CONTROL
IC001
POW CONT
POW MONT
FUNC 13
PS001
PB CORE
REC CORE
CO-5 (See Page 194)
PAUSE IN/OUT ADJ
TC-16 (See Page 194)
CN402 TITLE KEY BOARD
PM-11P (See Page 196)
PICTURE IN PICTURE
MM-25 (See Page 205)
DIGITAL PICTURE
SA-30 (See Page 221)
STILL ADJ
CC-34 (See Page 221)
J602
LM0001 LEVEL METER
FB-170 (See Page 222)
FUNCTION DISPLAY
BUZZER
FUNCTION KEY & VR
FB-171 (See Page 227)
HEAD PHONE AMP
S109 POWER SW
D101 POWER ON
D102 STANDBY
FUNCTION DISPLAY
MJ-26 (See Page 212)
MIC AMP
IG-14
REG 5V
DIG 5V
UN SW 5V
REG 9V
REG -9V
REG +9V
DRIVE 5V
DRIVE 9V
POWER ON
POWER CONT
DIGITAL 5V
REG +7V
REG -7V

# SECTION 4
# PRINTED WIRING AND SCHEMATIC DIAGRAMS

## 4-1. FRAME SCHEMATIC DIAGRAM


CORE BLOCK (REC/PB)
LS-9
LOADING SW
MS-4
MODE SW
M905 CONTROL MOTOR
S904 ME/MP MPHG REC PROOF
PM901 BRAKE SOLENOID
M906 LOADING MOTOR
FP-206 1-630-923-11
LD-1
RS-31
CN305
CN301 (WHT)
TAPE LED (+)
TAPE LED (-)
REC CORE TO FB-170 BOARD W007
PB CORE TO FB-171 BOARD W102
M902 REEL MOTOR
TS-74 (R)
TS-74 (L)
TS-96 420
W701
M904 CASSETE COMPARTMENT MOTOR
S901 CASSETE COMPARTMENT
S903 CASSETE LOCK
M901 DRUM MOTOR
DRUM FG.PG
FP-84 (FLEXIBLE BOARD) 1-625-649-11
M903 CAPSTAN MOTOR
FP-122 (FLEXIBLE BOARD) 1-625-650-11
CHECK PIN
SE-10P
REC CORE TO MC-46 BOARD CN302
NO USE
PB CORE TO MC-46 BOARD CN001
IG-4
RP-103(SP)
REC CORE TO YC-106 BOARD CN504
REC/PB CORE TO YX-2P BOARD CN004
HK-5
A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
1
2
3
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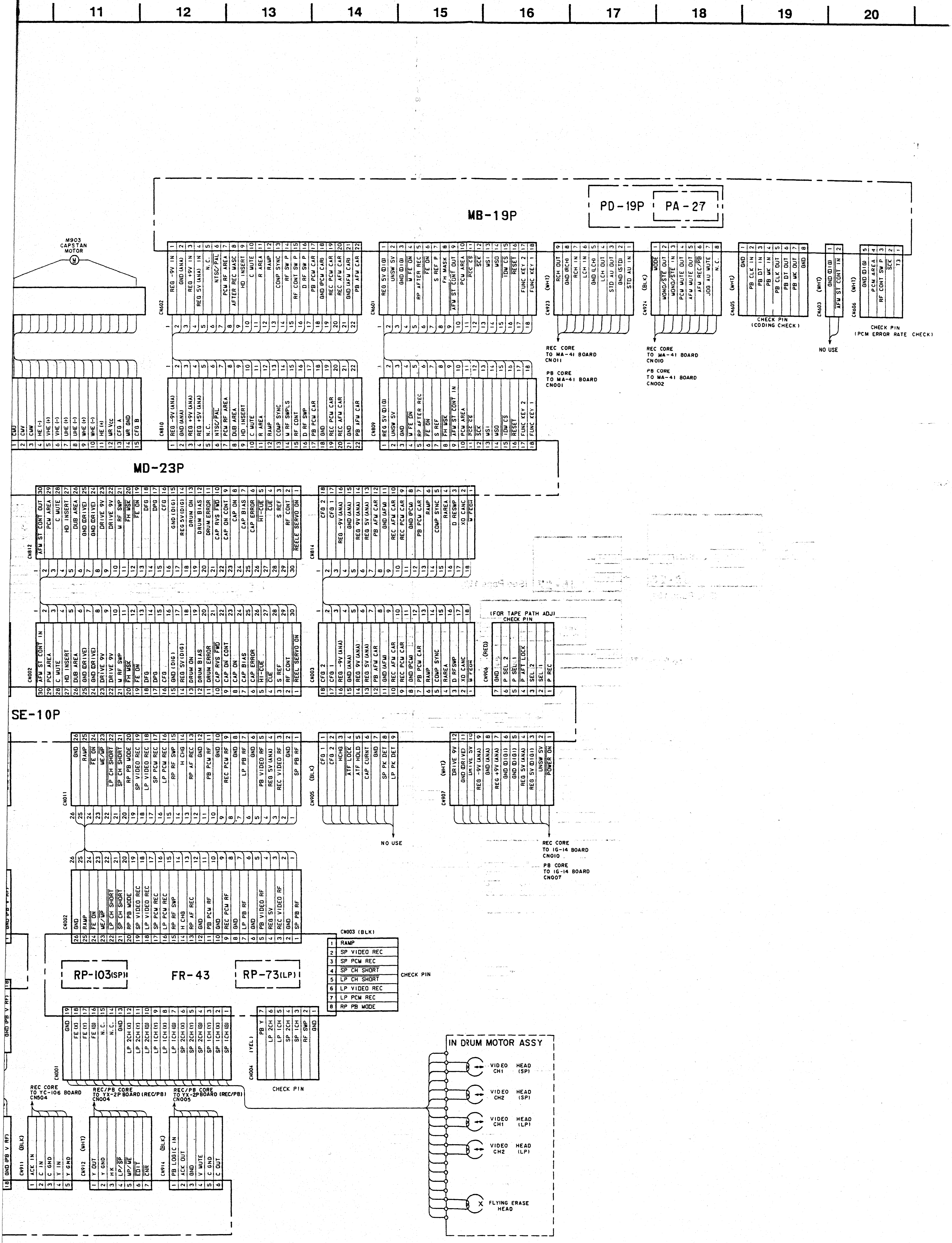
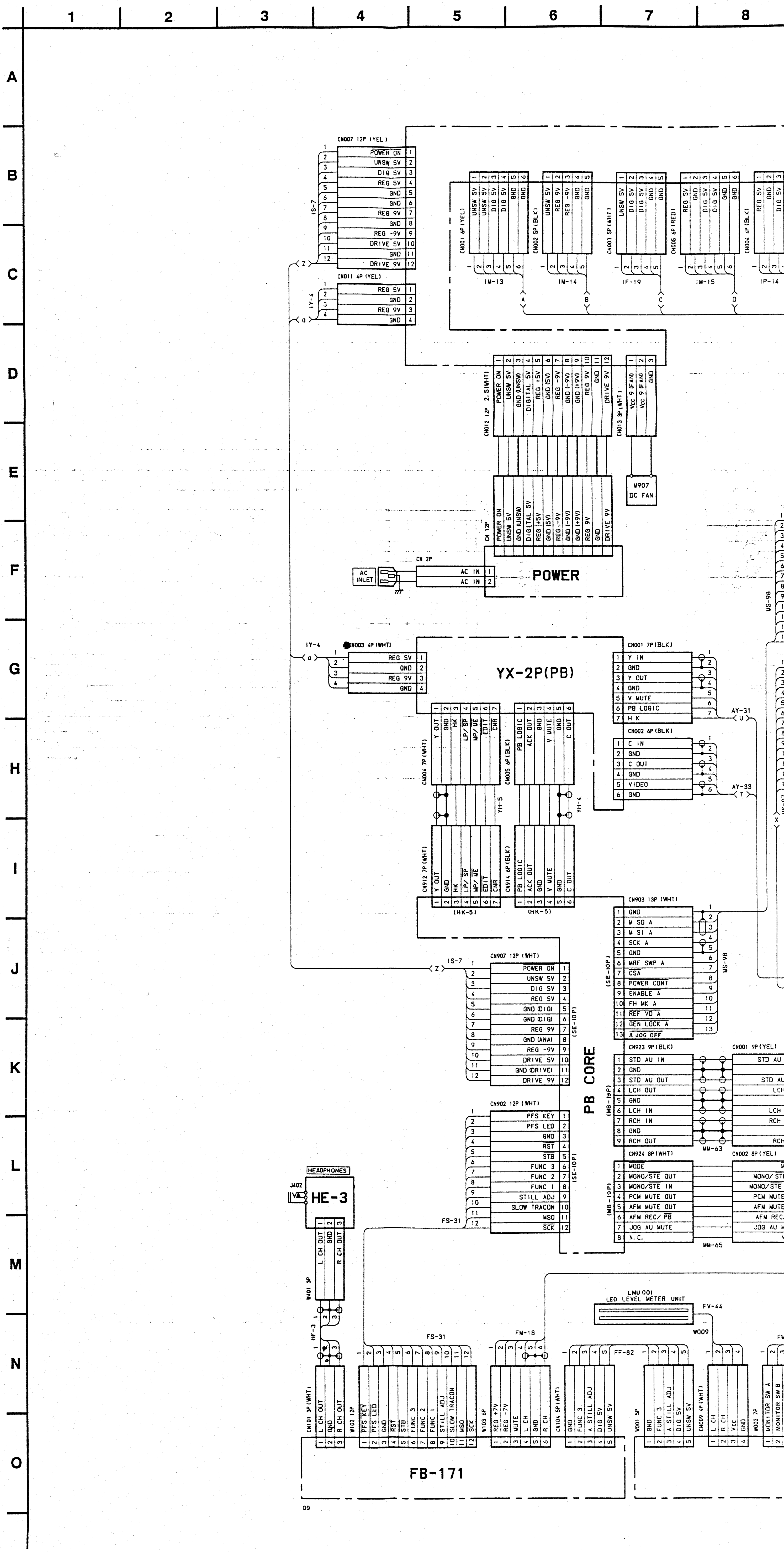
11


11
12
13
14
15
16
17
18
19
20
MB-19P
PD-19P
PA-27
M903 CAPSTAN MOTOR
CN602
CN601
CN923 (WHT)
CN924 (BLK)
CN605 (WHT)
CN603 (WHT)
CN606 (WHT)
CHECK PIN (CODING CHECK)
CHECK PIN (PCM ERROR RATE CHECK)
NO USE
REC CORE TO MA-41 BOARD CN011
PB CORE TO MA-41 BOARD CN001
REC CORE TO MA-41 BOARD CN010
PB CORE TO MA-41 BOARD CN002
CN810
CN809
MD-23P
CN812
CN814
CN002
CN003
CN906 (RED)
(FOR TAPE PATH ADJ) CHECK PIN
SE-10P
CN011
CN905 (BLK)
CN907 (WHT)
NO USE
REC CORE TO IG-14 BOARD CN010
PB CORE TO IG-14 BOARD CN007
CN002
CN003 (BLK)
1 RAMP
2 SP VIDEO REC
3 SP PCM REC
4 SP CH SHORT
5 LP CH SHORT
6 LP VIDEO REC
7 LP PCM REC
8 RP PB MODE
CHECK PIN
RP-103(SP)
FR-43
RP-73(LP)
CN001
CN004 (YEL)
CHECK PIN
IN DRUM MOTOR ASSY
VIDEO HEAD CH1 (SP)
VIDEO HEAD CH2 (SP)
VIDEO HEAD CH1 (LP)
VIDEO HEAD CH2 (LP)
FLYING ERASE HEAD
REC CORE TO YC-106 BOARD CN504
REC/PB CORE TO YX-2P BOARD (REC/PB) CN004
REC/PB CORE TO YX-2P BOARD (REC/PB) CN005
CN911 (BLK)
CN912 (WHT)
CN914 (BLK)

**FRAME FRAME**



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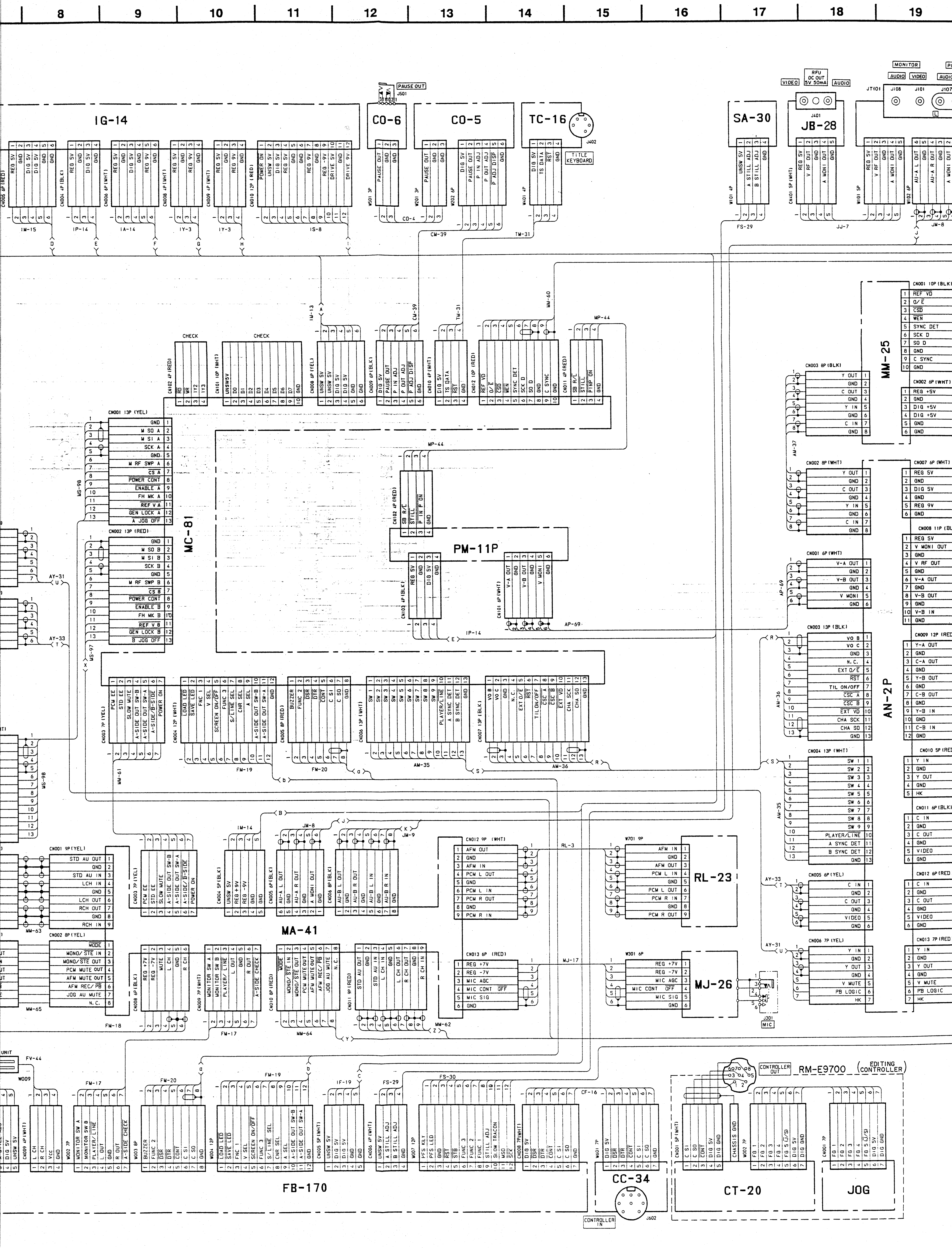
8
A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
CN007 12P (YEL)
POWER ON
UNSW 5V
DIG 5V
REG 5V
GND
REG 9V
REG -9V
DRIVE 5V
DRIVE 9V
IS-7
CN011 4P (YEL)
IY-4
CN001 6P (YEL)
CN002 5P (BLK)
CN003 5P (WHT)
CN005 6P (RED)
CN004 4P (BLK)
IM-13
IM-14
IF-19
IM-15
IP-14
CN012 12P 2.5(WHT)
CN013 3P (WHT)
VCC 9 (FAN)
M907
DC FAN
CN 12P
CN 2P
AC INLET
AC IN
POWER
CN003 4P (WHT)
YX-2P(PB)
CN001 7P (BLK)
Y IN
Y OUT
V MUTE
PB LOGIC
H K
AY-31
CN002 6P (BLK)
C IN
C OUT
VIDEO
AY-33
CN004 7P (WHT)
CN005 6P (BLK)
YH-5
YH-4
CN912 7P (WHT)
CN914 6P (BLK)
(HK-5)
CN903 13P (WHT)
M SO A
M SI A
SCK A
MRF SWP A
CSA
POWER CONT
ENABLE A
FH MK A
REF VD A
GEN LOCK A
A JOG OFF
WS-98
(SE-10P)
CN907 12P (WHT)
GND (DIG)
GND (ANA)
GND (DRIVE)
PB CORE
CN923 9P (BLK)
STD AU IN
STD AU OUT
LCH OUT
LCH IN
RCH IN
RCH OUT
(MB-19P)
MM-63
CN001 9P (YEL)
CN902 12P (WHT)
PFS KEY
PFS LED
RST
STB
FUNC 3
FUNC 2
FUNC 1
STILL ADJ
SLOW TRACON
MSO
SCK
FS-31
CN924 8P (WHT)
MODE
MONO/STE OUT
MONO/STE IN
PCM MUTE OUT
AFM MUTE OUT
AFM REC/ PB
JOG AU MUTE
N.C.
MM-65
CN002 8P (YEL)
HEADPHONES
J402
HE-3
L CH OUT
R CH OUT
W401 3P
HF-3
LMU001
LED LEVEL METER UNIT
FV-44
W009
FM-18
FF-82
CN101 3P (WHT)
W102 12P
W103 6P
REG +7V
REG -7V
MUTE
L CH
R CH
CN104 5P (WHT)
A STILL ADJ
W001 5P
CN009 4P (WHT)
VCC
W002 7P
MONITOR SW A
MONITOR SW B
FB-171
09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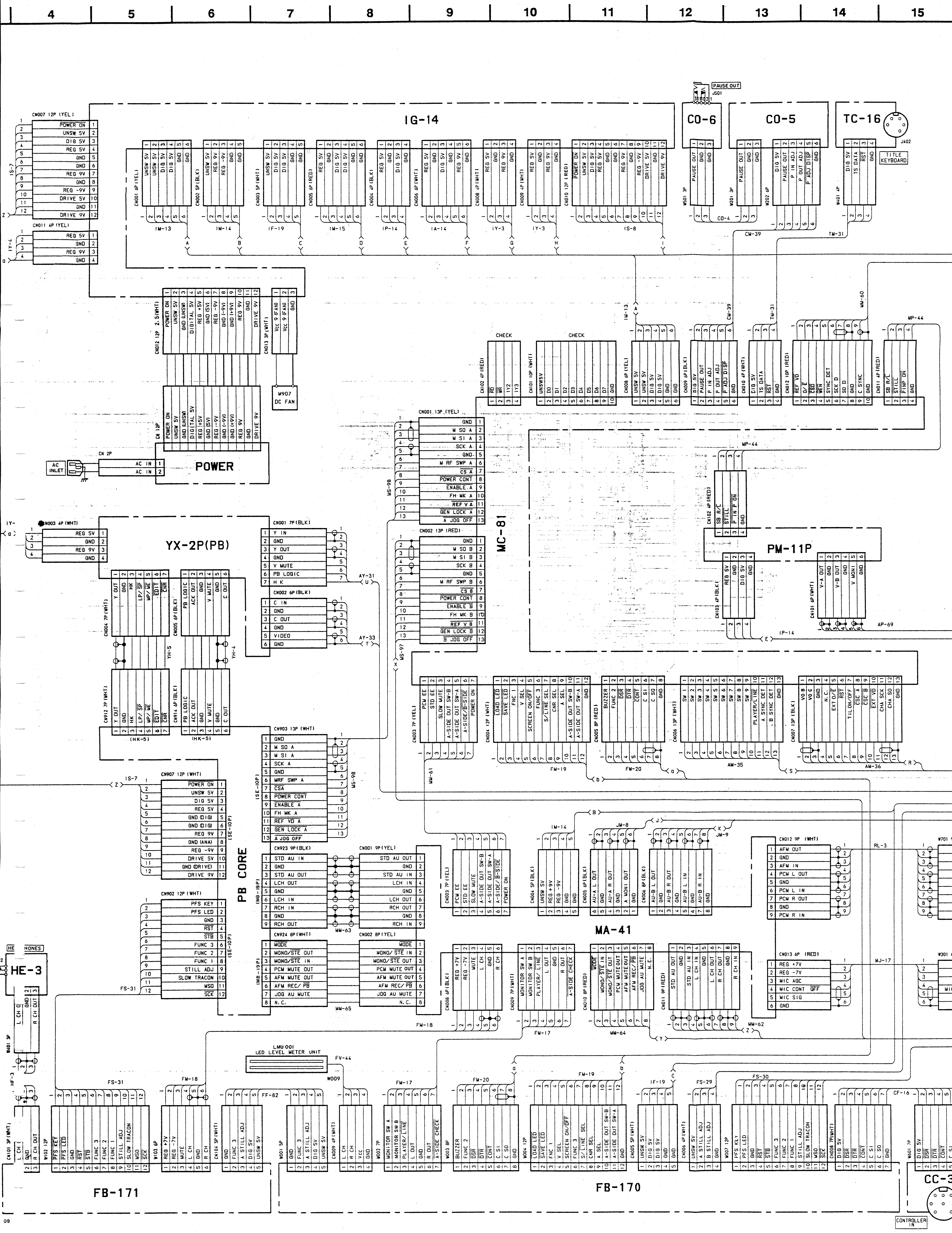
17
18
19
IG-14
CO-6
CO-5
TC-16
SA-30
JB-28
PAUSE OUT
J501
J402
TITLE KEYBOARD
VIDEO
RFU DC OUT 5V 50mA
AUDIO
J401
MONITOR
AUDIO
VIDEO
JT101
J108
J101
J107
IM-15
IP-14
IA-14
IY-3
IY-3
IS-8
CO-4
CM-39
TM-31
FS-29
JJ-7
JM-8
IM-13
CM-39
TM-31
MM-60
MP-44
CHECK
CHECK
MC-81
MS-98
MS-97
AY-31
AY-33
PM-11P
MP-44
IP-14
AP-69
MM-25
AN-2P
AM-37
AP-69
AM-36
AM-35
FM-19
FM-20
AM-35
AM-36
MM-61
IM-14
JM-8
JM-9
RL-3
RL-23
MJ-17
MJ-26
MA-41
MM-63
MM-65
FM-18
FM-17
MM-64
MM-62
J301
MIC
FV-44
W009
FM-17
FM-20
FM-19
IF-19
FS-29
FS-30
CF-16
FB-170
CC-34
CT-20
JOG
CONTROLLER OUT
RM-E9700 (EDITING CONTROLLER)
CONTROLLER IN
J602
UNIT


4
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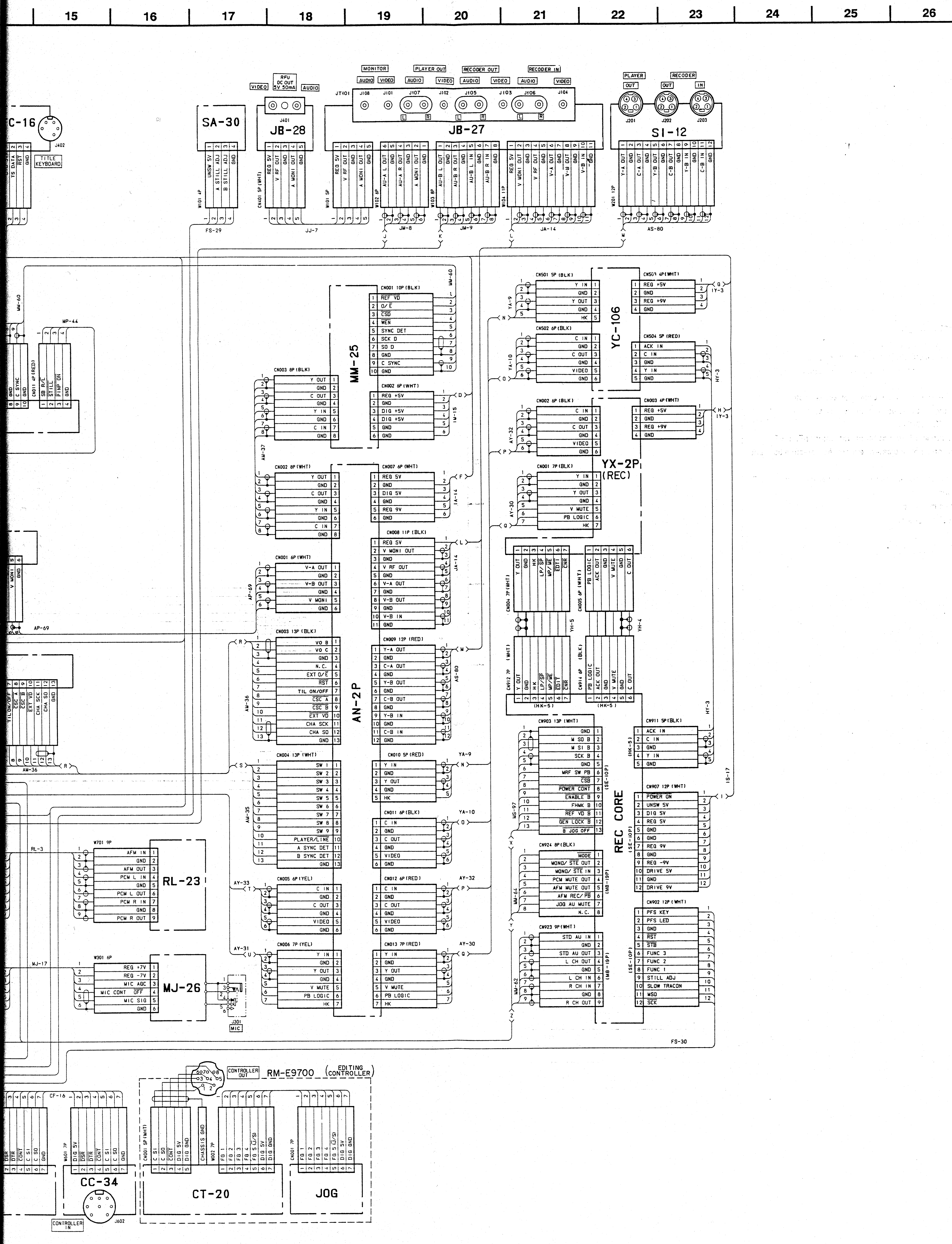
11
12
13
14
15
IG-14
CO-6
CO-5
TC-16
PAUSE OUT
J501
J402
TITLE KEYBOARD
CN007 12P (YEL)
POWER ON
UNSW 5V
DIG 5V
REG 5V
GND
REG 9V
REG -9V
DRIVE 5V
DRIVE 9V
CN011 4P (YEL)
IS-7
IY-4
IM-13
IM-14
IF-19
IM-15
IP-14
IA-14
IY-3
IS-8
CO-4
CM-39
TM-31
MM-60
MP-44
CN012 12P 2.5(WHT)
CN013 3P (WHT)
Vcc 9 (FAN)
M907
DC FAN
CN 12P
CN 2P
AC INLET
AC IN
POWER
CHECK
MC-81
CN001 13P (YEL)
CN002 13P (RED)
M SO A
M SI A
SCK A
M RF SWP A
CS A
POWER CONT
ENABLE A
FH MK A
REF V A
GEN LOCK A
A JOG OFF
M SO B
M SI B
SCK B
M RF SWP B
CS B
ENABLE B
FH MK B
REF V B
GEN LOCK B
B JOG OFF
MS-98
MS-97
PM-11P
SB R/C
STILL
P IN P ON
IP-14
AP-69
YX-2P(PB)
CN003 4P (WHT)
CN001 7P (BLK)
CN002 6P (BLK)
Y IN
Y OUT
V MUTE
PB LOGIC
HK
C IN
C OUT
VIDEO
AY-31
AY-33
CN004 7P (WHT)
CN005 6P (BLK)
YH-5
YH-4
CN912 7P (WHT)
CN914 6P (BLK)
(HK-5)
LP/SP
MP/WE
EDIT
CNR
ACK OUT
CN903 13P (WHT)
CN907 12P (WHT)
CN902 12P (WHT)
(SE-10P)
PB CORE
CN923 9P (BLK)
CN924 8P (WHT)
(MB-19P)
MM-63
MM-65
PFS KEY
PFS LED
RST
STB
FUNC 1
FUNC 2
FUNC 3
STILL ADJ
SLOW TRACON
MSO
SCK
STD AU IN
STD AU OUT
LCH OUT
LCH IN
RCH IN
RCH OUT
MODE
MONO/STE OUT
MONO/STE IN
PCM MUTE OUT
AFM MUTE OUT
AFM REC/PB
JOG AU MUTE
N.C.
HE-3
HEADPHONES
L CH OUT
R CH OUT
FS-31
MA-41
CN003 7P (YEL)
CN004 12P (WHT)
CN005 8P (RED)
CN006 13P (WHT)
CN007 13P (BLK)
FM-19
FM-20
AM-35
AM-36
MM-61
JM-8
JM-9
CN012 9P (WHT)
CN013 6P (RED)
AFM OUT
AFM IN
PCM L OUT
PCM L IN
PCM R OUT
PCM R IN
REG +7V
REG -7V
MIC AGC
MIC CONT OFF
MIC SIG
RL-3
MJ-17
FM-18
FM-17
MM-64
MM-62
LMU 001
LED LEVEL METER UNIT
FV-44
W009
FF-82
FM-17
IF-19
FS-29
FS-30
CF-16
FB-171
FB-170
CC-3
CONTROLLER IN
BUZZER
DSR
DTR
CONT
C SI
C SO
LOAD LED
SAVE LED
FNC 1
V SEL
SCREEN ON/OFF
S/LINE SEL
CNR SEL
A SEL
A-SIDE OUT SW-A
A-SIDE OUT SW-B
A-SIDE CHECK
MONITOR SW A
MONITOR SW B
PLAYER/LINE
09


E
15
16
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23
24
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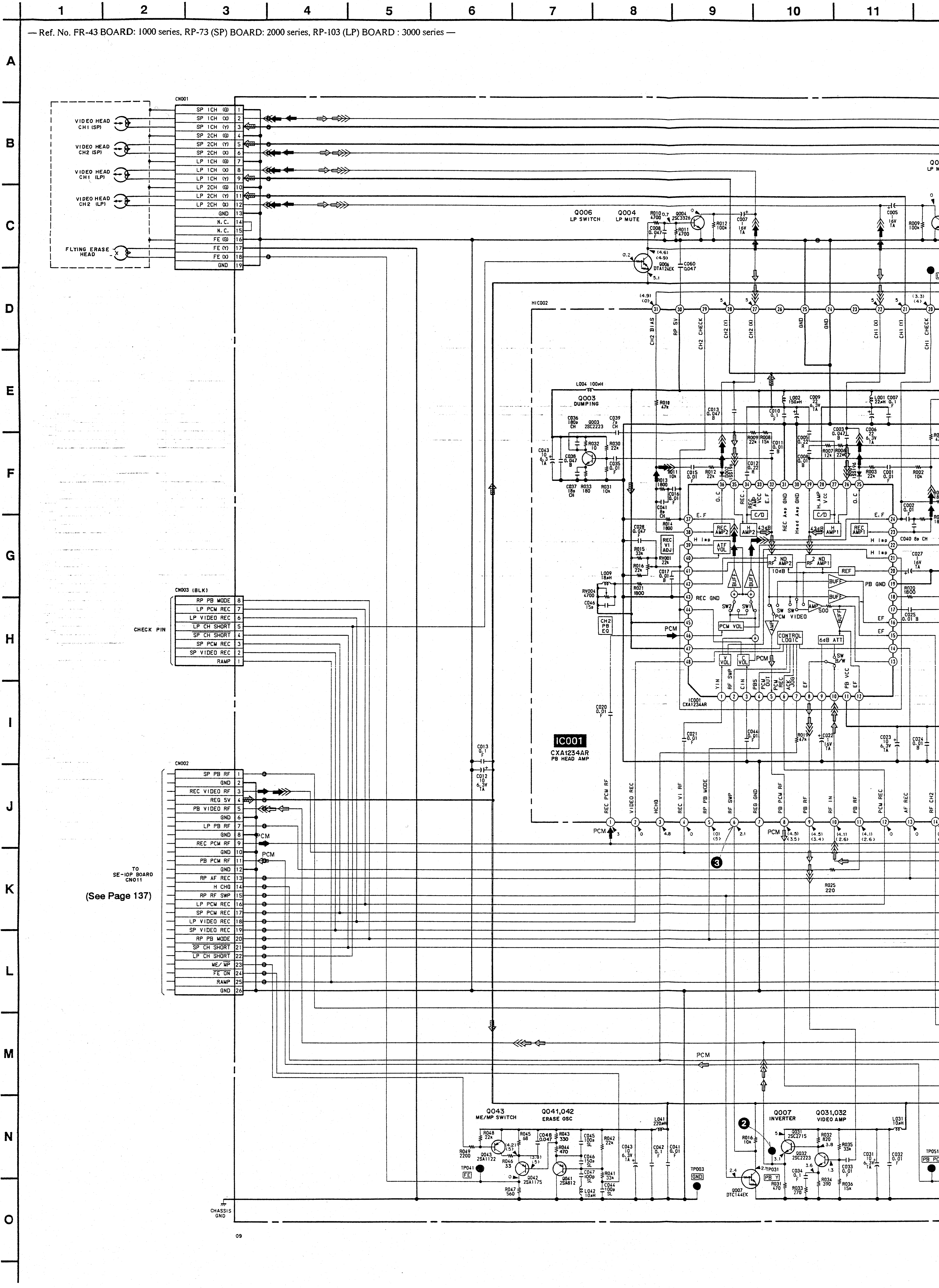
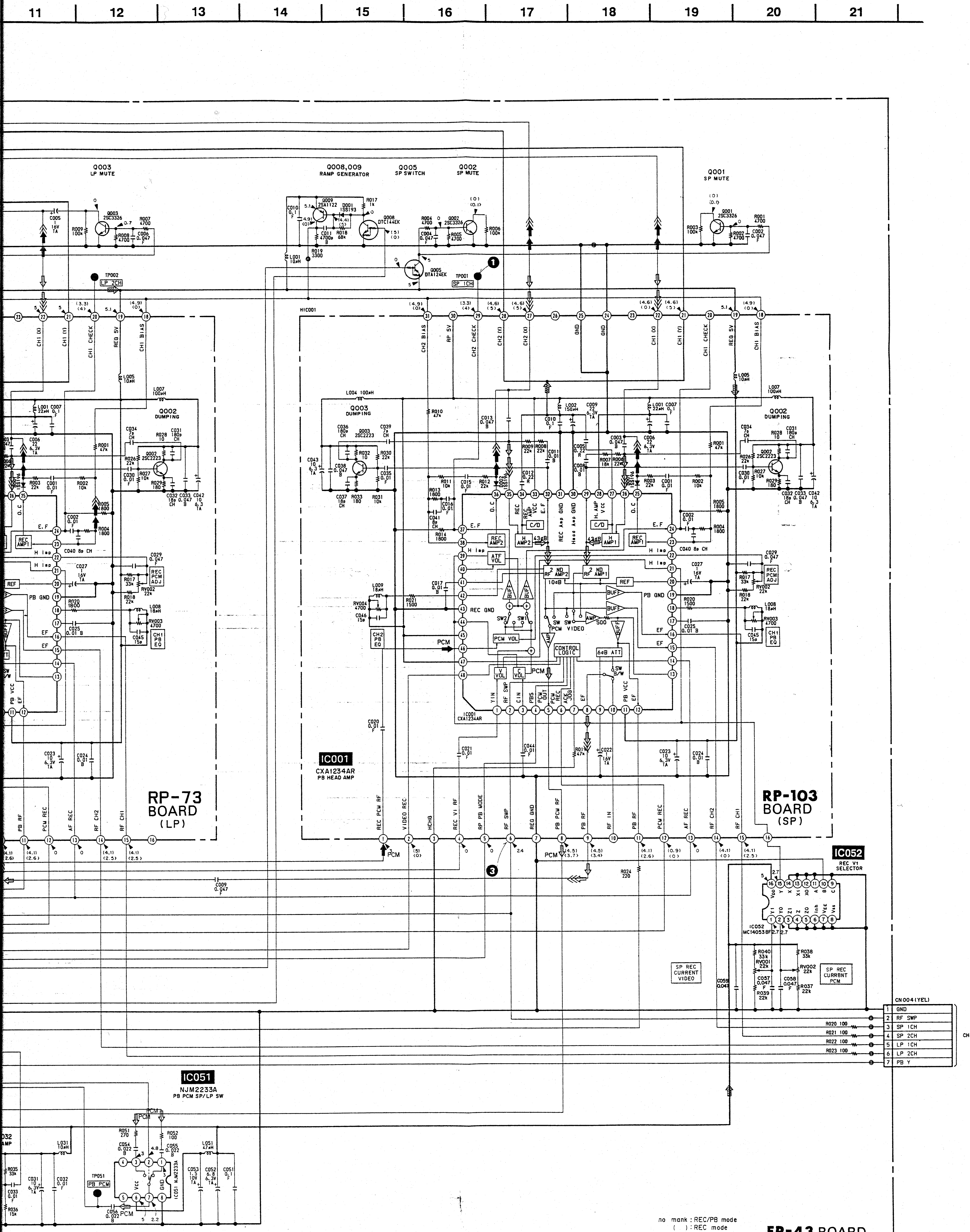
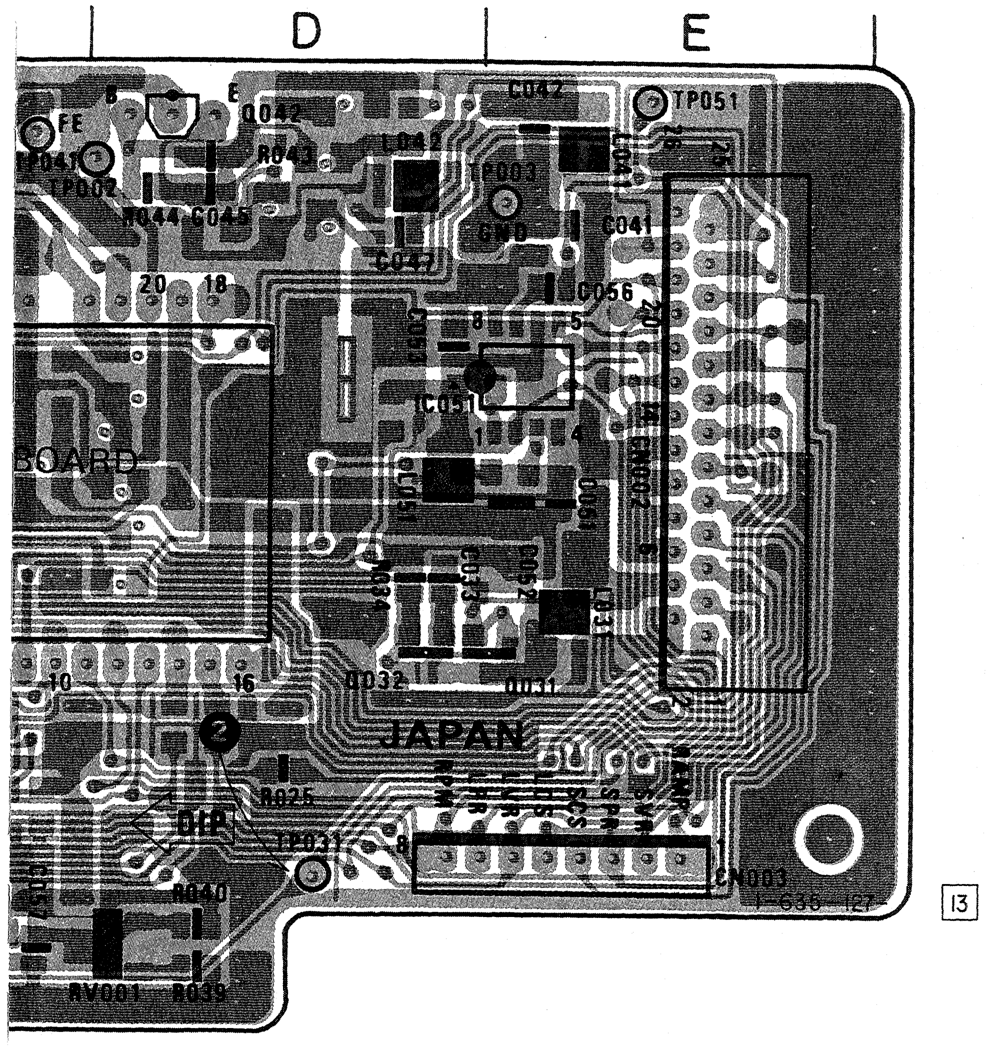
26
MONITOR
PLAYER OUT
RECODER OUT
RECODER IN
AUDIO
VIDEO
RFU DC OUT 5V 50mA
PLAYER
RECODER
OUT
IN
C-16
J402
TITLE KEYBOARD
SA-30
J401
JB-28
JB-27
SI-12
J201
J202
J203
JT101
J108
J101
J107
J102
J105
J103
J106
J104
FS-29
JJ-7
JM-8
JM-9
JA-14
AS-80
MM-60
MP-44
AP-69
AM-36
MM-25
AN-2P
AM-37
AM-35
YC-106
YX-2P (REC)
REC CORE
YH-5
YH-4
IY-3
HY-3
IS-17
IM-15
IA-14
JA-14
YA-9
YA-10
AY-32
AY-30
AY-33
AY-31
MS-97
MM-64
MM-62
RL-3
RL-23
MJ-17
MJ-26
J301 MIC
FS-30
CONTROLLER OUT
RM-E9700 (EDITING CONTROLLER)
CF-16
CC-34
CT-20
JOG
CONTROLLER IN
J602
CN001 10P (BLK)
CN002 6P (WHT)
CN003 8P (BLK)
CN002 8P (WHT)
CN007 6P (WHT)
CN008 11P (BLK)
CN001 6P (WHT)
CN003 13P (BLK)
CN009 12P (RED)
CN004 13P (WHT)
CN010 5P (RED)
CN011 6P (BLK)
CN005 6P (YEL)
CN012 6P (RED)
CN006 7P (YEL)
CN013 7P (RED)
CN501 5P (BLK)
CN502 6P (BLK)
CN503 4P (WHT)
CN504 5P (RED)
CN002 6P (BLK)
CN003 4P (WHT)
CN001 7P (BLK)
CN004 7P (WHT)
CN005 6P (WHT)
CN912 7P (WHT)
CN914 6P (BLK)
CN903 13P (WHT)
CN911 5P (BLK)
CN907 12P (WHT)
CN924 8P (BLK)
CN923 9P (WHT)
CN902 12P (WHT)
W701 9P
W301 6P
W601 7P
W002 7P
CN001 9P (WHT)
CN001 7P

## FR-43 (HEAD AMP), RP-73 (LP) (HEAD AMP (LP)), RP-103 (SP) (HEAD AMP (SP)) SCHEMATIC DIAGRAMS

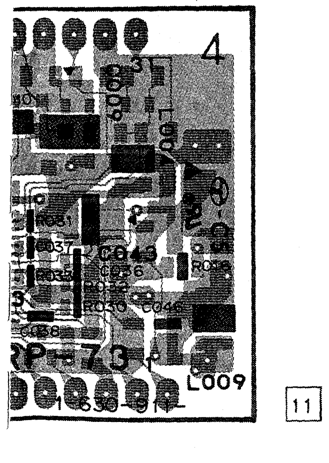
— Ref. No. FR-43 BOARD: 1000 series, RP-73 (SP) BOARD: 2000 series, RP-103 (LP) BOARD : 3000 series —


CN001
VIDEO HEAD CH1 (SP)
VIDEO HEAD CH2 (SP)
VIDEO HEAD CH1 (LP)
VIDEO HEAD CH2 (LP)
FLYING ERASE HEAD
SP 1CH (G)
SP 1CH (X)
SP 1CH (Y)
SP 2CH (G)
SP 2CH (Y)
SP 2CH (X)
LP 1CH (G)
LP 1CH (X)
LP 1CH (Y)
LP 2CH (G)
LP 2CH (Y)
LP 2CH (X)
GND
N.C.
N.C.
FE (G)
FE (Y)
FE (X)
GND
Q006 LP SWITCH
Q004 LP MUTE
HIC002
CH2 BIAS
RP 5V
CH2 CHECK
CH2 (Y)
CH2 (X)
GND
GND
CH1 (X)
CH1 (Y)
CH1 CHECK
Q003 DUMPING
CN003 (BLK)
RP PB MODE
LP PCM REC
LP VIDEO REC
LP CH SHORT
SP CH SHORT
SP PCM REC
SP VIDEO REC
RAMP
CHECK PIN
IC001
CXA1234AR
PB HEAD AMP
REC AMP2
H AMP2
H AMP1
REC AMP1
2 ND RF AMP2
2 ND RF AMP1
REF
BUFF
ATF VOL
REC VI ADJ
CH2 PB EQ
PCM VOL
CONTROL LOGIC
6dB ATT
REC GND
PB GND
CN002
SP PB RF
GND
REC VIDEO RF
REG 5V
PB VIDEO RF
GND
LP PB RF
GND
REC PCM RF
GND
PB PCM RF
GND
RP AF REC
H CHG
RP RF SWP
LP PCM REC
SP PCM REC
LP VIDEO REC
SP VIDEO REC
RP PB MODE
SP CH SHORT
LP CH SHORT
ME/MP
FE ON
RAMP
GND
TO SE-10P BOARD CN011
(See Page 137)
REC PCM RF
VIDEO REC
HCHG
REC VI RF
RP PB MODE
RF SWP
REG GND
PB PCM RF
PB RF
RF IN
PB RF
PCM REC
AF REC
RF CH2
PCM
❸
❷
Q043 ME/MP SWITCH
Q041,042 ERASE OSC
Q007 INVERTER
Q031,032 VIDEO AMP
TP041 FE
TP003 GND
TP031 PB Y
CHASSIS GND
1 2 3 4 5 6 7 8 9 10 11
A B C D E F G H I J K L M N O


11
12
13
14
15
16
17
18
19
20
21
Q003 LP MUTE
Q008,009 RAMP GENERATOR
Q005 SP SWITCH
Q002 SP MUTE
Q001 SP MUTE
TP002 LP 2CH
TP001 SP 1CH
H1C001
CH1 (X)
CH1 (Y)
CH1 CHECK
REG 5V
CH1 BIAS
CH2 BIAS
RP 5V
CH2 CHECK
CH2 (Y)
CH2 (X)
GND
Q002 DUMPING
Q003 DUMPING
REC AMP1
REC AMP2
H AMP1
H AMP2
2 ND RF AMP1
2 ND RF AMP2
ATF VOL
REF
BUFF
PCM VOL
CONTROL LOGIC
6dB ATT
V VOL
C VOL
REC PCM ADJ
CH1 PB EQ
CH2 PB EQ
REC GND
PB GND
H Imp
E.F
PCM
IC001 CXA1234AR
IC001
CXA1234AR
PB HEAD AMP
RP-73 BOARD (LP)
RP-103 BOARD (SP)
REC PCM RF
VIDEO REC
HCHG
REC V1 RF
RP PB MODE
RF SWP
REG GND
PB PCM RF
PB RF
RF IN
PCM REC
AF REC
RF CH2
RF CH1
IC052
REC V1 SELECTOR
IC052 MC14053BF
SP REC CURRENT VIDEO
SP REC CURRENT PCM
CN004 (YEL)
1 GND
2 RF SWP
3 SP 1CH
4 SP 2CH
5 LP 1CH
6 LP 2CH
7 PB Y
CHECK PIN
IC051
NJM2233A
PB PCM SP/LP SW
TP051 PB PCM
no mark : REC/PB mode
( ) : REC mode
< > : PB mode
FR-43 BOARD


D
E
TP051
C042
Q042
FE
TP041
TP002
R043
R044
C046
TP003
GND
C041
C047
C056
20
18
IC051
BOARD
CN002
Q031
Q032
JAPAN
R025
DIP
TP031
R040
RV001
R039
CN003
1-635-127
13

CTOR SIDE)


4
C043
RP-73
L009
1-635-917
11

* A-7061-827-A RP-73 BOARD, COMPLETE
**********************
(Ref. No 2, 000 Series)

< DIODE >

| | | | |
|---|---|---|---|
| D001 | 8-719-801-41 | DIODE | 1SS196-TE85L |
| D002 | 8-719-801-41 | DIODE | 1SS196-TE85L |

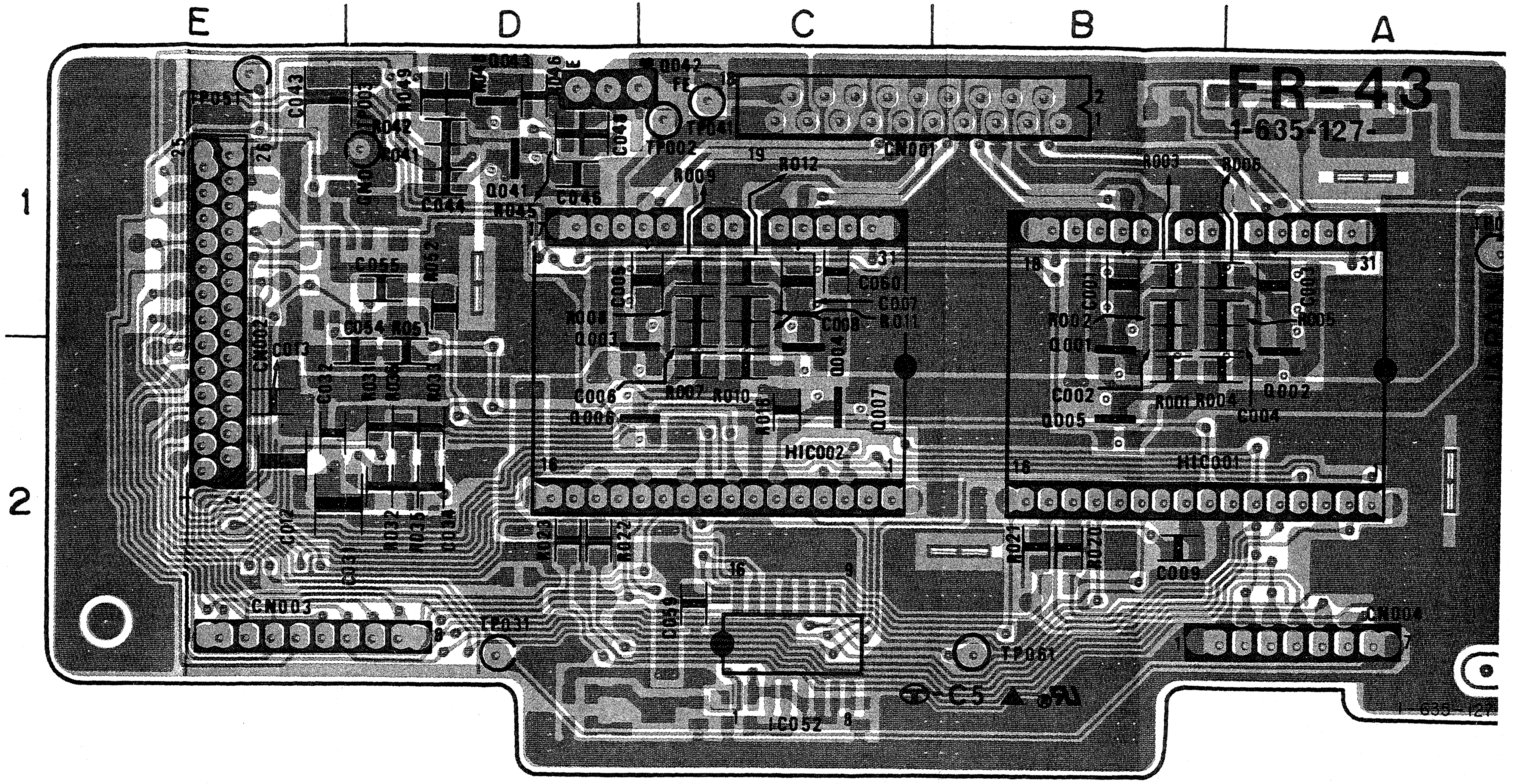
< IC >

| | | | |
|---|---|---|---|
| IC001 | 8-752-033-00 | IC | CXA1234AR-T3 |

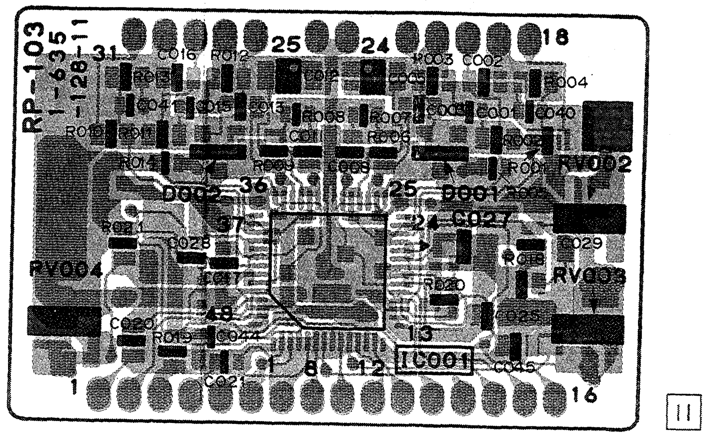
< TRANSISTOR >

| | | | |
|---|---|---|---|
| Q002 | 8-729-102-07 | TRANSISTOR | 2SC2223 |
| Q003 | 8-729-102-07 | TRANSISTOR | 2SC2223 |

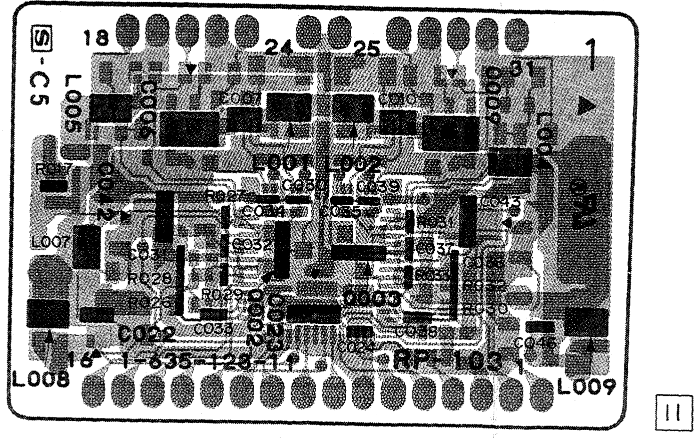
## **FR-43** BOARD (CONDUCTOR SIDE)


E
D
C
B
A
1
2
FR-43
1-635-127
CN001
CN002
CN003
CN004
HIC001
HIC002
IC052
TP031
TP051
TP061
TP041
TP002
Q041
Q042
C5
1-635-127

## **RP-103** BOARD (COMPONENT SIDE)


RP-103
1-635-128-11
31
25
24
18
1
8
12
13
16
36
37
48
IC001
RV002
RV003
RV004
D001
D002
11

## **RP-103** BOARD (CONDUCTOR SIDE)


C5
18
24
25
31
1
16
L005
L007
L008
L009
1-635-128-11
RP-103
11

* A-7062-166-A RP-103 BOARD, COMPLETE
***********************
(Ref. No 3, 000 Seri

< DIODE >

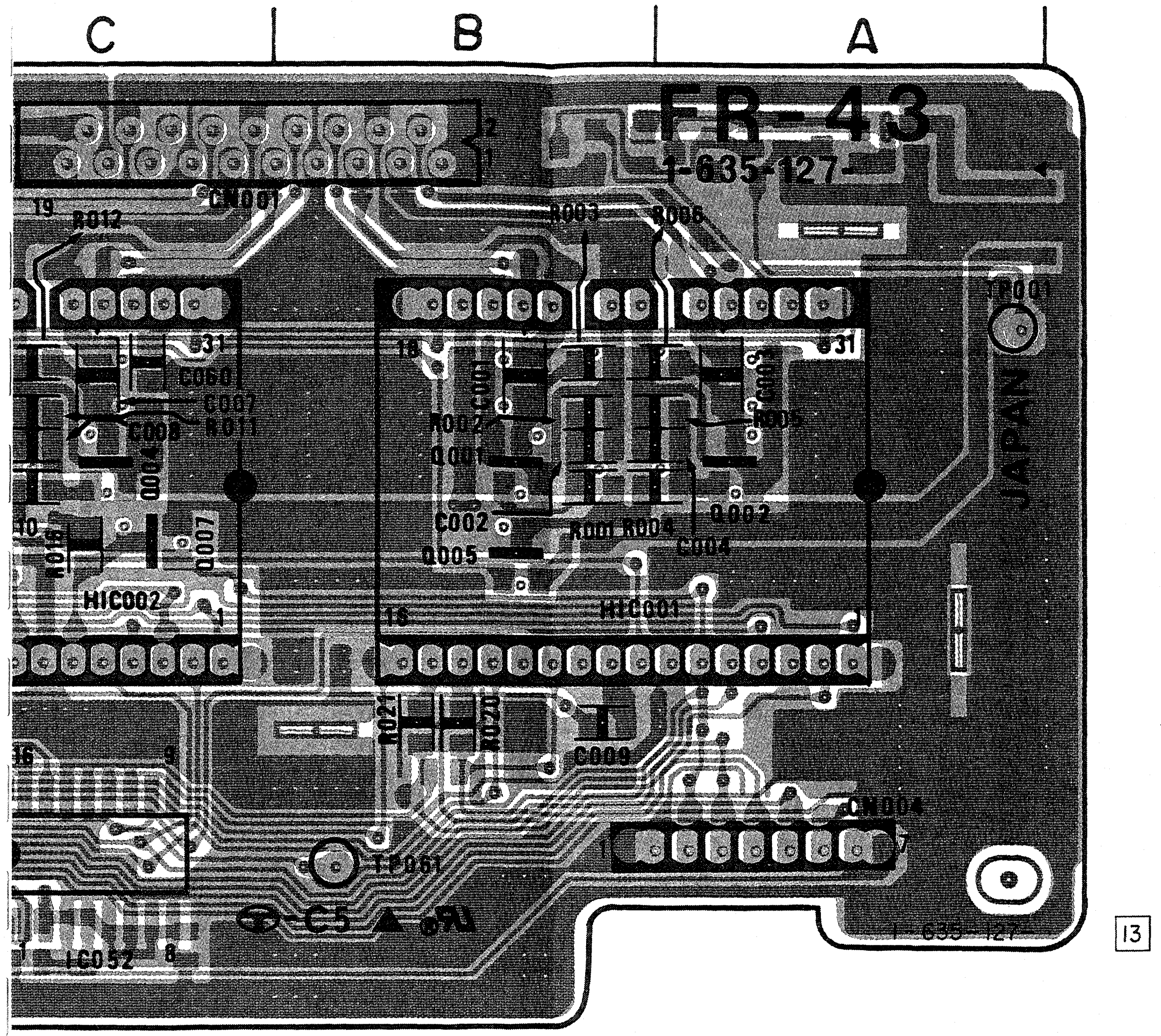
| | | | |
|---|---|---|---|
| D001 | 8-719-801-41 | DIODE | 1SS196-TE85L |
| D002 | 8-719-801-41 | DIODE | 1SS196-TE85L |

< IC >

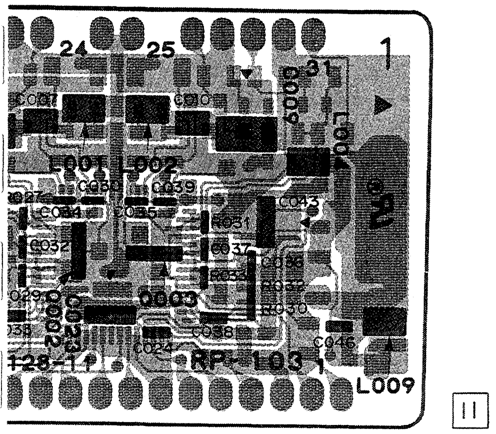
| | | | |
|---|---|---|---|
| IC001 | 8-752-033-00 | IC | CXA1234AR-T3 |

< TRANSISTOR >

| | | | |
|---|---|---|---|
| Q002 | 8-729-102-07 | TRANSISTOR | 2SC2223 |
| Q003 | 8-729-102-07 | TRANSISTOR | 2SC2223 |


C
B
A
FR-43
1-635-127
CN001
19
R012
R003
R006
TP001
JAPAN
C060
C007
C008
R011
31
R002
Q001
C002
Q005
R001 R004
C004
Q002
R005
HIC002
HIC001
16
C009
TP061
CN004
IC052
8
1-635-127
13

## OARD (CONDUCTOR SIDE)


24
25
1
31
L001
L002
Q003
RP-103
L009
11

* A-7062-166-A RP-103 BOARD, COMPLETE
************************
(Ref. No 3, 000 Series)

< DIODE >

| | | | |
|---|---|---|---|
| D001 | 8-719-801-41 | DIODE | 1SS196-TE85L |
| D002 | 8-719-801-41 | DIODE | 1SS196-TE85L |

< IC >

| | | | |
|---|---|---|---|
| IC001 | 8-752-033-00 | IC | CXA1234AR-T3 |

< TRANSISTOR >

| | | | |
|---|---|---|---|
| Q002 | 8-729-102-07 | TRANSISTOR | 2SC2223 |
| Q003 | 8-729-102-07 | TRANSISTOR | 2SC2223 |

* A-7062-165-A FR-43 BOARD, COMPLETE
**********************
(Ref. No 1, 000 Series)

< DIODE >

| | | | |
|---|---|---|---|
| D001 | 8-719-400-18 | DIODE | MA152WK |

< IC >

| | | | |
|---|---|---|---|
| IC051 | 8-759-710-09 | IC | NJM2233AM |
| IC052 | 8-759-300-71 | IC | MC14053BF-T1 |

< TRANSISTOR >

| | | | |
|---|---|---|---|
| Q001 | 8-729-202-38 | TRANSISTOR | 2SC3326N |
| Q002 | 8-729-202-38 | TRANSISTOR | 2SC3326N |
| Q003 | 8-729-202-38 | TRANSISTOR | 2SC3326N |
| Q004 | 8-729-202-38 | TRANSISTOR | 2SC3326N |
| Q005 | 8-729-901-05 | TRANSISTOR | DTA124EK |
| Q006 | 8-729-901-05 | TRANSISTOR | DTA124EK |
| Q007 | 8-729-901-01 | TRANSISTOR | DTC144EK |
| Q008 | 8-729-901-01 | TRANSISTOR | DTC144EK |
| Q009 | 8-729-320-17 | TRANSISTOR | 2SA1122CD |
| Q031 | 8-729-201-27 | TRANSISTOR | 2SC2715 |
| Q032 | 8-729-102-07 | TRANSISTOR | 2SC2223 |
| Q041 | 8-729-216-22 | TRANSISTOR | 2SA1162 |
| Q042 | 8-729-119-76 | TRANSISTOR | 2SA1175 |
| Q043 | 8-729-320-17 | TRANSISTOR | 2SA1122CD |

* A-7062-164-A HK-5 BOARD, COMPLETE
********************
(Ref.No 4,000 Series)

< DIODE >

| | | | |
|---|---|---|---|
| D101 | 8-719-400-18 | DIODE | MA152WK |
| D102 | 8-719-400-18 | DIODE | MA152WK |
| D105 | 8-719-800-76 | DIODE | 1SS226 |
| D106 | 8-719-400-18 | DIODE | MA152WK |
| D107 | 8-719-400-18 | DIODE | MA152WK |
| D108 | 8-719-400-18 | DIODE | MA152WK |
| D109 | 8-719-400-18 | DIODE | MA152WK |
| D301 | 8-719-400-18 | DIODE | MA152WK |
| D302 | 8-719-400-18 | DIODE | MA152WK |
| D401 | 8-719-400-18 | DIODE | MA152WK |
| D402 | 8-719-400-18 | DIODE | MA152WK |
| D403 | 8-719-400-18 | DIODE | MA152WK |
| D404 | 8-719-400-18 | DIODE | MA152WK |
| D405 | 8-719-400-18 | DIODE | MA152WK |
| D501 | 8-719-400-18 | DIODE | MA152WK |
| D601 | 8-719-800-76 | DIODE | 1SS226 |
| D602 | 8-719-400-18 | DIODE | MA152WK |
| D603 | 8-719-400-18 | DIODE | MA152WK |
| D604 | 8-719-400-18 | DIODE | MA152WK |
| D605 | 8-719-400-18 | DIODE | MA152WK |
| D801 | 8-719-400-18 | DIODE | MA152WK |
| D802 | 8-719-400-18 | DIODE | MA152WK |
| D804 | 8-719-400-18 | DIODE | MA152WK |
| D821 | 8-719-400-18 | DIODE | MA152WK |
| D822 | 8-719-800-76 | DIODE | 1SS226 |
| D823 | 8-719-800-76 | DIODE | 1SS226 |
| D901 | 8-719-400-18 | DIODE | MA152WK |

< IC >

| | | | |
|---|---|---|---|
| IC101 | 8-759-233-94 | IC | TA8607F |
| IC102 | 8-759-925-60 | IC | BA401 |
| IC301 | 8-752-002-XX | IC | CX20030 |
| IC401 | 8-752-031-01 | IC | CXA1047M |
| IC501 | 8-752-003-12 | IC | CX20031 |
| IC601 | 8-752-202-10 | IC | CX22021 |
| IC602 | 8-752-003-22 | IC | CX20032 |
| IC603 | 8-752-305-47 | IC | CX23054 |
| IC604 | 8-759-009-51 | IC | MC14538BF |
| IC702 | 8-759-012-00 | IC | MC10H116M |
| IC703 | 8-752-006-12 | IC | CX20061 |
| IC801 | 8-759-202-67 | IC | CX20117 |
| IC901 | 8-759-925-74 | IC | SN74HC04ANS |
| IC902 | 8-759-925-74 | IC | SN74HC04ANS |

< TRANSISTOR >

| | | | |
|---|---|---|---|
| Q101 | 8-729-200-86 | TRANSISTOR | 2SC27140 |
| Q102 | 8-729-901-04 | TRANSISTOR | DTA114EK |
| Q103 | 8-729-200-86 | TRANSISTOR | 2SC27140 |
| Q104 | 8-729-901-01 | TRANSISTOR | DTC144EK |
| Q105 | 8-729-904-07 | TRANSISTOR | FMG2 |
| Q107 | 8-729-201-27 | TRANSISTOR | 2SC2715 |
| Q110 | 8-729-901-01 | TRANSISTOR | DTC144EK |
| Q111 | 8-729-200-86 | TRANSISTOR | 2SC27140 |
| Q112 | 8-729-901-01 | TRANSISTOR | DTC144EK |
| Q113 | 8-729-200-86 | TRANSISTOR | 2SC27140 |
| Q116 | 8-729-201-27 | TRANSISTOR | 2SC2715 |
| Q117 | 8-729-200-86 | TRANSISTOR | 2SC27140 |
| Q118 | 8-729-200-86 | TRANSISTOR | 2SC27140 |
| Q119 | 8-729-200-86 | TRANSISTOR | 2SC27140 |
| Q120 | 8-729-200-86 | TRANSISTOR | 2SC27140 |
| Q121 | 8-729-201-27 | TRANSISTOR | 2SC2715 |
| Q122 | 8-729-901-01 | TRANSISTOR | DTC144EK |
| Q123 | 8-729-901-01 | TRANSISTOR | DTC144EK |
| Q124 | 8-729-901-06 | TRANSISTOR | DTA144EK |
| Q125 | 8-729-901-01 | TRANSISTOR | DTC144EK |
| Q126 | 8-729-201-27 | TRANSISTOR | 2SC2715 |
| Q127 | 8-729-201-27 | TRANSISTOR | 2SC2715 |
| Q128 | 8-729-202-38 | TRANSISTOR | 2SC3326N |
| Q129 | 8-729-201-27 | TRANSISTOR | 2SC2715 |
| Q130 | 8-729-201-27 | TRANSISTOR | 2SC2715 |
| Q131 | 8-729-216-22 | TRANSISTOR | 2SA1162 |
| Q132 | 8-729-201-27 | TRANSISTOR | 2SC2715 |
| Q181 | 8-729-907-46 | TRANSISTOR | IMZ1 |
| Q182 | 8-729-903-10 | TRANSISTOR | FMW1 |
| Q183 | 8-729-200-86 | TRANSISTOR | 2SC27140 |
| Q184 | 8-729-216-22 | TRANSISTOR | 2SA1162 |
| Q209 | 8-729-200-86 | TRANSISTOR | 2SC27140 |
| Q210 | 8-729-200-86 | TRANSISTOR | 2SC27140 |
| Q211 | 8-729-200-86 | TRANSISTOR | 2SC27140 |
| Q212 | 8-729-901-01 | TRANSISTOR | DTC144EK |
| Q213 | 8-729-901-06 | TRANSISTOR | DTA144EK |
| Q214 | 8-729-200-86 | TRANSISTOR | 2SC27140 |
| Q215 | 8-729-902-96 | TRANSISTOR | FMS1 |
| Q217 | 8-729-200-86 | TRANSISTOR | 2SC27140 |
| Q218 | 8-729-200-86 | TRANSISTOR | 2SC27140 |
| Q301 | 8-729-201-27 | TRANSISTOR | 2SC2715 |
| Q302 | 8-729-201-27 | TRANSISTOR | 2SC2715 |
| Q305 | 8-729-201-27 | TRANSISTOR | 2SC2715 |
| Q306 | 8-729-201-27 | TRANSISTOR | 2SC2715 |
| Q307 | 8-729-201-27 | TRANSISTOR | 2SC2715 |
| Q309 | 8-729-201-27 | TRANSISTOR | 2SC2715 |
| Q310 | 8-729-201-27 | TRANSISTOR | 2SC2715 |
| Q311 | 8-729-201-27 | TRANSISTOR | 2SC2715 |
| Q312 | 8-729-901-06 | TRANSISTOR | DTA144EK |
| Q313 | 8-729-216-22 | TRANSISTOR | 2SA1162 |
| Q314 | 8-729-201-27 | TRANSISTOR | 2SC2715 |
| Q315 | 8-729-201-27 | TRANSISTOR | 2SC2715 |
| Q316 | 8-729-901-01 | TRANSISTOR | DTC144EK |
| Q317 | 8-729-201-27 | TRANSISTOR | 2SC2715 |
| Q318 | 8-729-901-06 | TRANSISTOR | DTA144EK |
| Q319 | 8-729-201-27 | TRANSISTOR | 2SC2715 |
| Q320 | 8-729-901-01 | TRANSISTOR | DTC144EK |
| Q321 | 8-729-901-01 | TRANSISTOR | DTC144EK |
| Q322 | 8-729-216-22 | TRANSISTOR | 2SA1162 |
| Q323 | 8-729-901-01 | TRANSISTOR | DTC144EK |
| Q324 | 8-729-901-01 | TRANSISTOR | DTC144EK |
| Q325 | 8-729-901-06 | TRANSISTOR | DTA144EK |
| Q326 | 8-729-901-06 | TRANSISTOR | DTA144EK |
| Q327 | 8-729-201-27 | TRANSISTOR | 2SC2715 |
| Q328 | 8-729-201-27 | TRANSISTOR | 2SC2715 |
| Q330 | 8-729-901-06 | TRANSISTOR | DTA144EK |
| Q389 | 8-729-201-27 | TRANSISTOR | 2SC2715 |
| Q401 | 8-729-201-27 | TRANSISTOR | 2SC2715 |
| Q402 | 8-729-201-27 | TRANSISTOR | 2SC2715 |
| Q403 | 8-729-901-01 | TRANSISTOR | DTC144EK |
| Q404 | 8-729-901-01 | TRANSISTOR | DTC144EK |
| Q405 | 8-729-901-06 | TRANSISTOR | DTA144EK |
| Q406 | 8-729-201-27 | TRANSISTOR | 2SC2715 |
| Q407 | 8-729-216-22 | TRANSISTOR | 2SA1162 |
| Q408 | 8-729-216-22 | TRANSISTOR | 2SA1162 |
| Q409 | 8-729-201-27 | TRANSISTOR | 2SC2715 |
| Q410 | 8-729-216-22 | TRANSISTOR | 2SA1162 |
| Q411 | 8-729-901-01 | TRANSISTOR | DTC144EK |
| Q412 | 8-729-901-01 | TRANSISTOR | DTC144EK |
| Q413 | 8-729-901-01 | TRANSISTOR | DTC144EK |
| Q414 | 8-729-201-27 | TRANSISTOR | 2SC2715 |
| Q415 | 8-729-216-22 | TRANSISTOR | 2SA1162 |
| Q416 | 8-729-216-22 | TRANSISTOR | 2SA1162 |
| Q417 | 8-729-901-01 | TRANSISTOR | DTC144EK |
| Q418 | 8-729-201-27 | TRANSISTOR | 2SC2715 |
| Q419 | 8-729-201-27 | TRANSISTOR | 2SC2715 |
| Q420 | 8-729-202-38 | TRANSISTOR | 2SC3326N |
| Q421 | 8-729-202-38 | TRANSISTOR | 2SC3326N |
| Q422 | 8-729-201-27 | TRANSISTOR | 2SC2715 |
| Q423 | 8-729-201-27 | TRANSISTOR | 2SC2715 |
| Q424 | 8-729-901-01 | TRANSISTOR | DTC144EK |
| Q425 | 8-729-201-27 | TRANSISTOR | 2SC2715 |
| Q426 | 8-729-201-27 | TRANSISTOR | 2SC2715 |
| Q427 | 8-729-216-22 | TRANSISTOR | 2SA1162 |
| Q428 | 8-729-216-22 | TRANSISTOR | 2SA1162 |
| Q429 | 8-729-901-01 | TRANSISTOR | DTC144EK |
| Q430 | 8-729-901-01 | TRANSISTOR | DTC144EK |
| Q431 | 8-729-216-22 | TRANSISTOR | 2SA1162 |
| Q501 | 8-729-901-06 | TRANSISTOR | DTA144EK |
| Q502 | 8-729-901-01 | TRANSISTOR | DTC144EK |
| Q503 | 8-729-901-00 | TRANSISTOR | DTC124EK |
| Q504 | 8-729-201-27 | TRANSISTOR | 2SC2715 |
| Q601 | 8-729-901-01 | TRANSISTOR | DTC144EK |
| Q603 | 8-729-901-01 | TRANSISTOR | DTC144EK |
| Q604 | 8-729-201-27 | TRANSISTOR | 2SC2715 |
| Q605 | 8-729-201-27 | TRANSISTOR | 2SC2715 |
| Q606 | 8-729-901-01 | TRANSISTOR | DTC144EK |
| Q607 | 8-729-201-27 | TRANSISTOR | 2SC2715 |
| Q608 | 8-729-216-22 | TRANSISTOR | 2SA1162 |
| Q609 | 8-729-901-00 | TRANSISTOR | DTC124EK |
| Q610 | 8-729-904-04 | TRANSISTOR | FMS2 |
| Q611 | 8-729-201-27 | TRANSISTOR | 2SC2715 |
| Q612 | 8-729-201-27 | TRANSISTOR | 2SC2715 |
| Q613 | 8-729-901-01 | TRANSISTOR | DTC144EK |
| Q701 | 8-729-201-27 | TRANSISTOR | 2SC2715 |
| Q702 | 8-729-202-38 | TRANSISTOR | 2SC3326N |
| Q703 | 8-729-202-38 | TRANSISTOR | 2SC3326N |
| Q704 | 8-729-216-22 | TRANSISTOR | 2SA1162 |
| Q706 | 8-729-201-27 | TRANSISTOR | 2SC2715 |
| Q707 | 8-729-201-27 | TRANSISTOR | 2SC2715 |
| Q710 | 8-729-901-01 | TRANSISTOR | DTC144EK |
| Q711 | 8-729-901-01 | TRANSISTOR | DTC144EK |
| Q712 | 8-729-901-01 | TRANSISTOR | DTC144EK |
| Q720 | 8-729-200-86 | TRANSISTOR | 2SC27140 |
| Q721 | 8-729-200-86 | TRANSISTOR | 2SC27140 |
| Q722 | 8-729-200-86 | TRANSISTOR | 2SC27140 |
| Q723 | 8-729-201-27 | TRANSISTOR | 2SC2715 |
| Q724 | 8-729-901-01 | TRANSISTOR | DTC144EK |
| Q801 | 8-729-920-08 | TRANSISTOR | DTC124TK-T146 |
| Q802 | 8-729-201-27 | TRANSISTOR | 2SC27.15 |
| Q803 | 8-729-201-27 | TRANSISTOR | 2SC2715 |
| Q804 | 8-729-201-27 | TRANSISTOR | 2SC2715 |
| Q805 | 8-729-216-22 | TRANSISTOR | 2SA1162 |
| Q811 | 8-729-901-01 | TRANSISTOR | DTC144EK |
| Q901 | 8-729-901-01 | TRANSISTOR | DTC144EK |
| Q902 | 8-729-901-01 | TRANSISTOR | DTC144EK |
| Q903 | 8-729-104-25 | TRANSISTOR | 2SB804-AV |
| Q904 | 8-729-201-27 | TRANSISTOR | 2SC2715 |

## HK-5 (CHROMA SIGNAL PROCESS, Y SIGNAL PROCESS, Y/C/AFM MIX) PRINTED WIRING BOARD

— Ref. No. HK-5 BOARD: 4000 series —

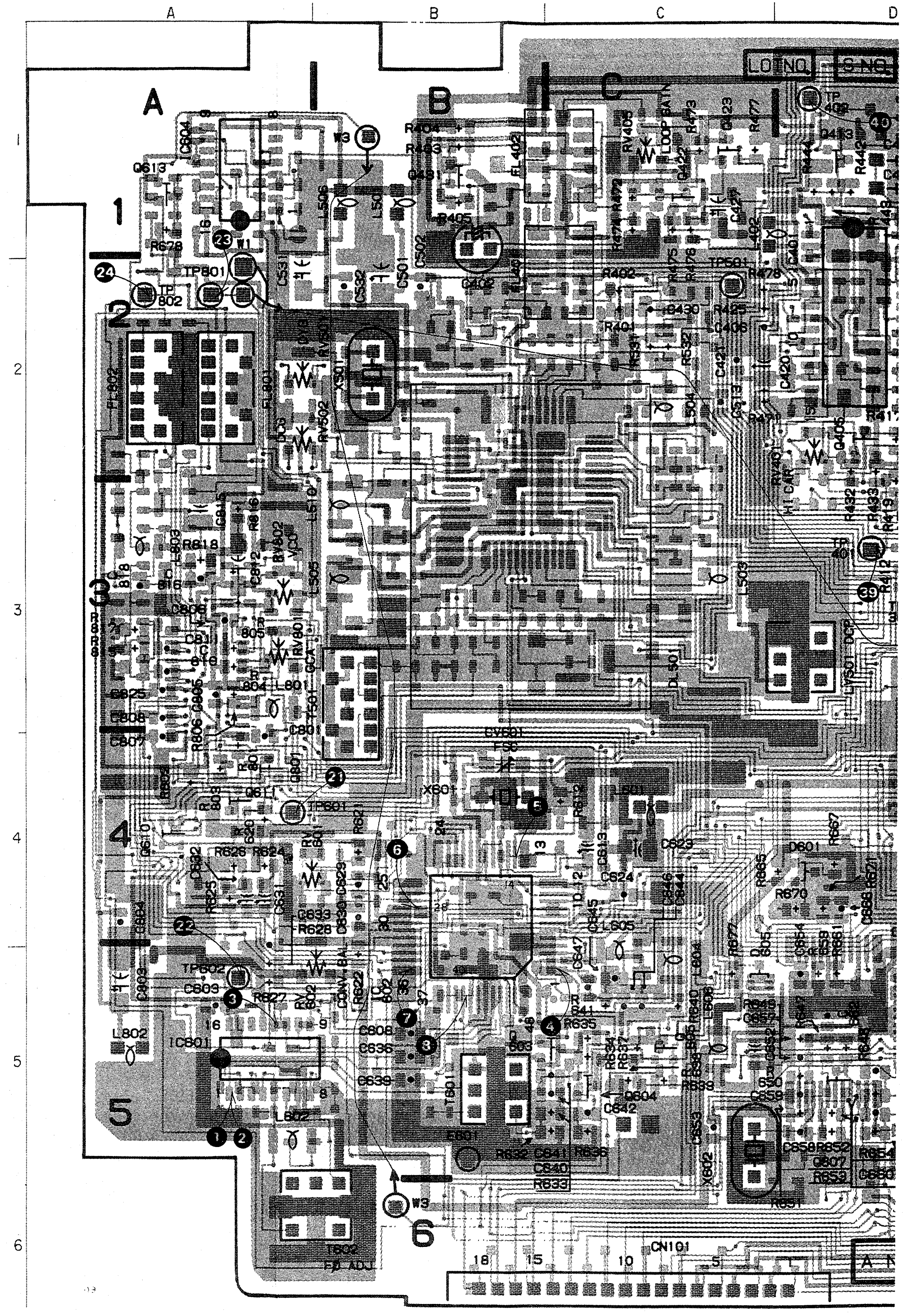
HK-5 BOARD (COMPONENT SIDE)

| | |
|---|---|
| D301 | E-1 |
| D404 | E-2 |
| D601 | D-4 |
| D605 | C-5 |
| D802 | G-6 |
| D804 | G-6 |
| IC101 | G-4 |
| IC102 | G-3 |
| IC301 | F-2 |
| IC401 | D-1 |
| IC601 | A-5 |
| IC602 | B-5 |
| IC702 | G-2 |
| IC703 | H-3 |
| IC901 | E-5 |
| IC902 | E-5 |
| Q101 | H-5 |
| Q105 | F-4 |
| Q107 | H-4 |
| Q112 | G-4 |
| Q119 | G-3 |
| Q125 | F-5 |
| Q126 | G-5 |
| Q131 | H-4 |
| Q181 | H-3 |
| Q182 | H-3 |
| Q215 | E-5 |
| Q306 | F-2 |
| Q307 | F-2 |
| Q315 | F-2 |
| Q316 | G-2 |
| Q317 | F-3 |
| Q322 | E-2 |
| Q323 | D-2 |
| Q324 | E-3 |
| Q325 | F-2 |
| Q403 | D-3 |
| Q404 | D-3 |
| Q405 | D-2 |
| Q413 | D-1 |
| Q414 | E-2 |
| Q417 | D-2 |
| Q422 | C-1 |
| Q423 | C-1 |
| Q426 | D-1 |
| Q431 | B-1 |
| Q603 | B-5 |
| Q604 | C-5 |
| Q605 | C-5 |
| Q607 | D-5 |
| Q608 | D-5 |
| Q610 | A-4 |
| Q611 | A-4 |
| Q704 | D-4 |
| Q721 | G-3 |
| Q801 | A-4 |

HK-5 BOARD (CONDUCTOR SIDE)

| | |
|---|---|
| D101 | F-4 |
| D102 | F-4 |
| D105 | G-3 |
| D106 | G-4 |
| D107 | F-4 |
| D108 | G-3 |
| D109 | H-4 |
| D302 | E-1 |
| D401 | D-2 |
| D402 | D-1 |
| D403 | D-1 |
| D405 | D-2 |
| D501 | C-2 |
| D602 | D-5 |
| D603 | A-1 |
| D604 | A-1 |
| D801 | C-5 |
| D821 | A-3 |
| D822 | A-3 |
| D901 | G-6 |
| IC501 | C-3 |
| IC603 | C-5 |
| IC801 | A-4 |
| Q102 | F-5 |
| Q103 | G-5 |
| Q104 | G-4 |
| Q110 | G-4 |
| Q111 | G-4 |
| Q113 | H-4 |
| Q116 | F-4 |
| Q117 | G-3 |
| Q118 | F-3 |
| Q120 | G-3 |
| Q121 | H-3 |
| Q122 | G-4 |
| Q123 | G-4 |
| Q127 | G-5 |
| Q128 | H-5 |
| Q129 | H-4 |
| Q130 | H-4 |
| Q132 | H-5 |
| Q183 | H-3 |
| Q184 | H-3 |
| Q209 | E-4 |
| Q210 | F-5 |
| Q211 | F-5 |
| Q212 | F-4 |
| Q213 | E-5 |
| Q214 | E-5 |
| Q217 | E-5 |
| Q218 | F-5 |
| Q301 | E-1 |
| Q302 | G-1 |
| Q305 | G-1 |
| Q309 | F-1 |
| Q310 | G-2 |
| Q311 | F-3 |
| Q312 | F-3 |
| Q313 | F-3 |
| Q314 | F-2 |
| Q318 | F-2 |
| Q319 | E-1 |
| Q320 | E-1 |
| Q321 | E-2 |
| Q326 | G-3 |
| Q327 | F-2 |
| Q328 | G-2 |
| Q330 | E-3 |
| Q389 | F-2 |
| Q401 | B-1 |
| Q402 | C-1 |
| Q406 | D-3 |
| Q407 | D-2 |
| Q408 | D-2 |
| Q409 | D-3 |
| Q410 | D-3 |
| Q411 | E-3 |
| Q412 | E-3 |
| Q415 | D-2 |
| Q416 | D-2 |
| Q418 | D-1 |
| Q419 | D-2 |
| Q420 | D-1 |
| Q421 | D-1 |
| Q424 | D-2 |
| Q425 | E-3 |
| Q427 | C-1 |
| Q428 | C-1 |
| Q429 | C-1 |
| Q430 | C-1 |
| Q501 | C-2 |
| Q502 | C-1 |
| Q503 | C-2 |
| Q504 | B-3 |
| Q601 | B-5 |
| Q606 | C-5 |
| Q609 | A-4 |
| Q612 | A-1 |
| Q613 | A-1 |
| Q701 | D-3 |
| Q702 | D-3 |
| Q703 | D-4 |
| Q706 | E-3 |
| Q707 | E-4 |
| Q710 | D-4 |
| Q711 | D-4 |
| Q712 | D-5 |
| Q720 | G-2 |
| Q722 | G-5 |
| Q723 | G-5 |
| Q724 | G-5 |
| Q802 | A-4 |
| Q803 | A-3 |
| Q804 | A-3 |
| Q805 | A-2 |
| Q811 | C-5 |
| Q901 | F-6 |
| Q902 | F-6 |
| Q903 | F-5 |
| Q904 | F-5 |

HK-5 BOARD (COMPONENT SIDE)



## SIGNAL PROCESS, Y SIGNAL PROCESS, Y/C/AFM MIX) PRINTED WIRING BOARD

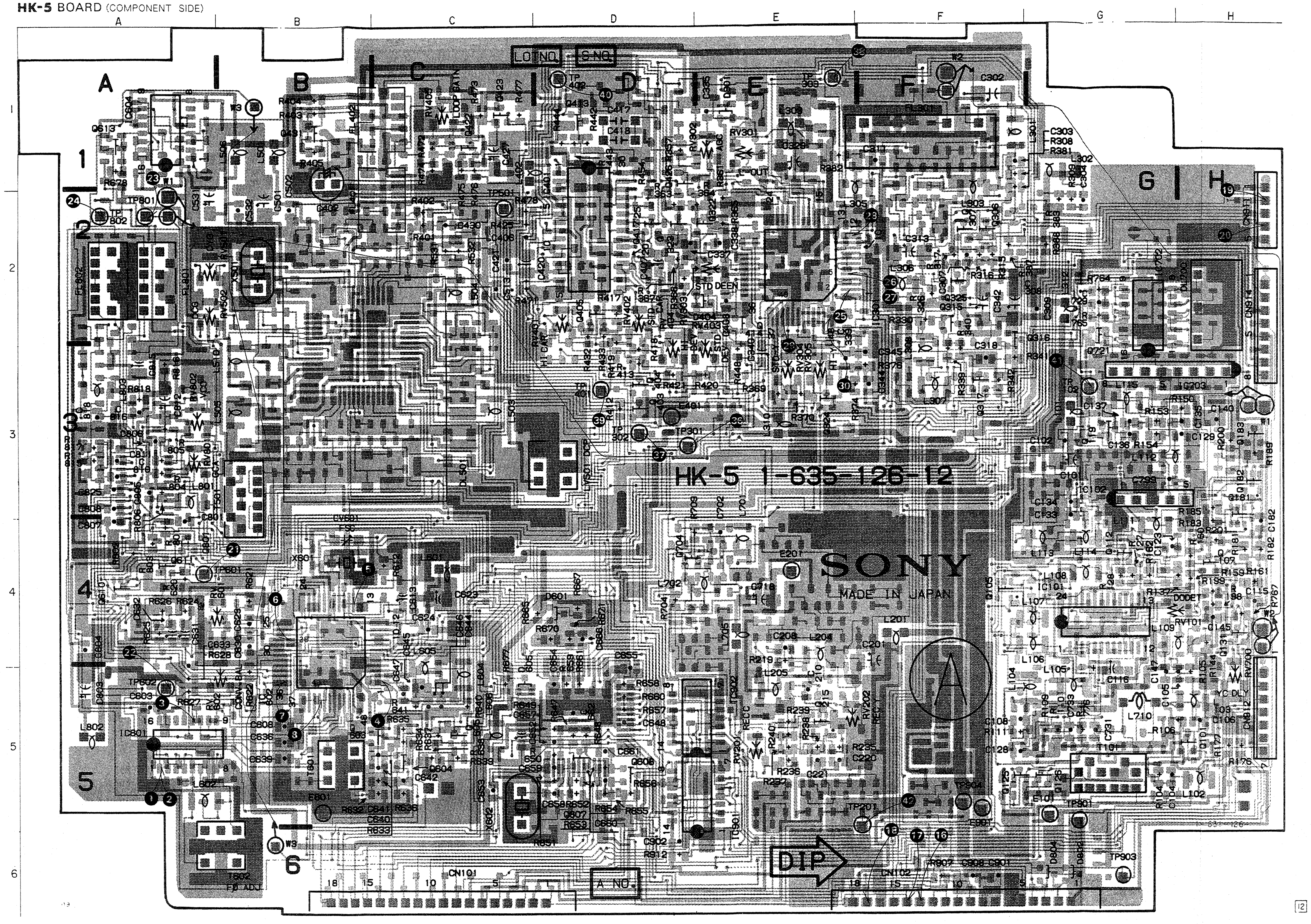
RD: 4000 series —

BOARD
NDUCTOR
)

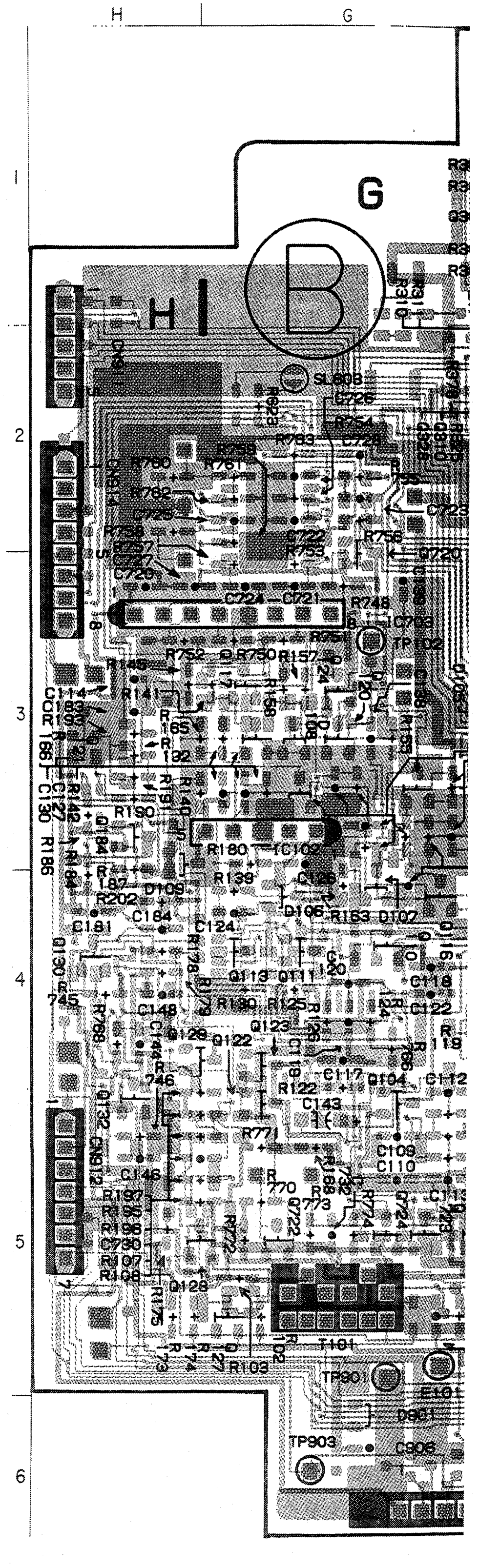
| | |
|---|---|
| | F-4 |
| | F-4 |
| 5 | G-3 |
| 6 | G-4 |
| 7 | F-4 |
| | G-3 |
| | H-4 |
| | E-1 |
| | D-2 |
| 2 | D-1 |
| 3 | D-1 |
| 5 | D-2 |
| | C-2 |
| | D-5 |
| | A-1 |
| 4 | A-1 |
| 1 | C-5 |
| 1 | A-3 |
| | A-3 |
| | G-6 |
| 1 | C-3 |
| 3 | C-5 |
| 1 | A-4 |
| | F-5 |
| | G-5 |
| | G-4 |
| 0 | G-4 |
| 1 | G-4 |
| 3 | H-4 |
| | F-4 |
| | G-3 |
| | F-3 |
| 0 | G-3 |
| 1 | H-3 |
| 2 | G-4 |
| | G-4 |
| | G-5 |
| | H-5 |
| | H-4 |
| 0 | H-4 |
| 2 | H-5 |
| 3 | H-3 |
| 4 | H-3 |
| | E-4 |
| | F-5 |
| 1 | F-5 |
| 2 | F-4 |
| 3 | E-5 |
| 4 | E-5 |
| 7 | E-5 |
| 3 | F-5 |
| 1 | E-1 |
| 2 | G-1 |
| 5 | G-1 |
| 9 | F-1 |
| 0 | G-2 |
| 1 | F-3 |
| 2 | F-3 |
| 3 | F-3 |
| 4 | F-2 |
| 8 | F-2 |
| 9 | E-1 |
| 0 | E-1 |
| 1 | E-2 |
| 6 | G-3 |
| 7 | F-2 |
| 8 | G-2 |
| 0 | E-3 |
| 9 | F-2 |
| 1 | B-1 |
| 2 | C-1 |
| 6 | D-3 |
| 7 | D-2 |
| 8 | D-2 |
| 9 | D-3 |
| 0 | D-3 |
| 1 | E-3 |
| 2 | E-3 |
| 5 | D-2 |
| 6 | D-2 |
| 8 | D-1 |
| 9 | D-2 |
| 0 | D-1 |
| 1 | D-1 |
| 4 | D-2 |
| 5 | E-3 |
| 7 | C-1 |
| 8 | C-1 |
| 9 | C-1 |
| 0 | C-1 |

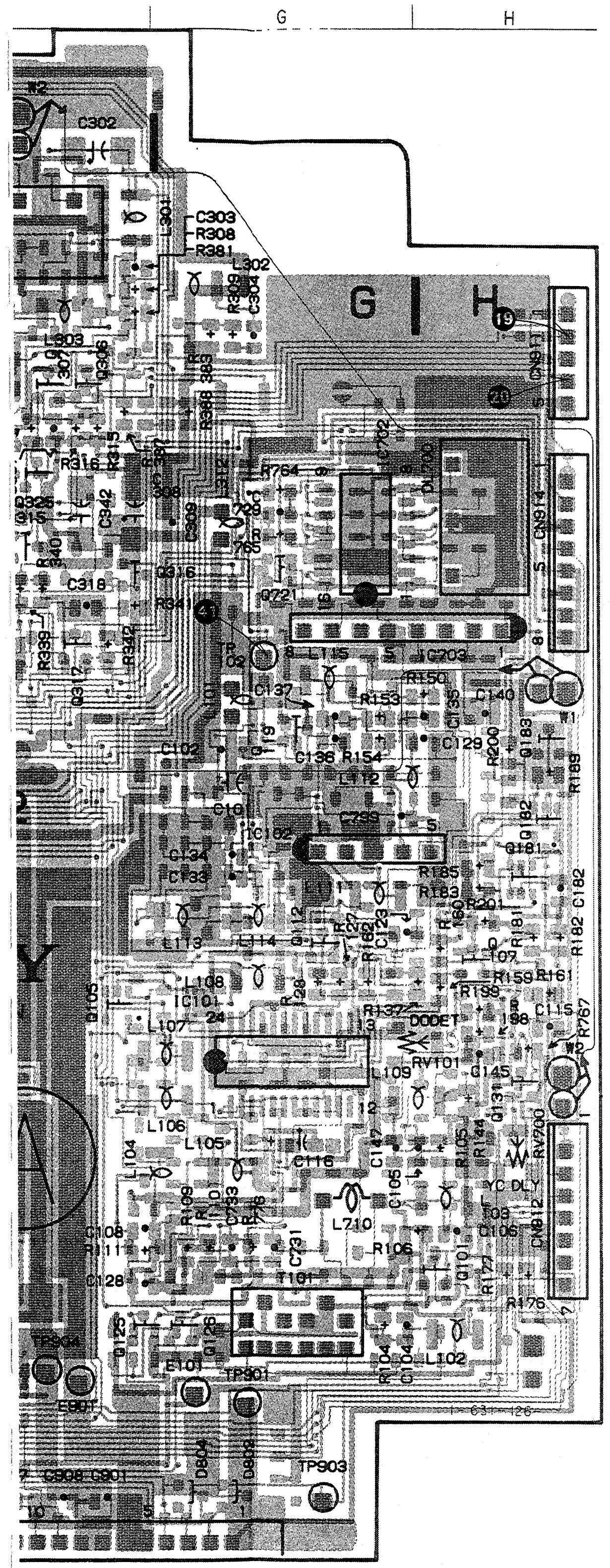
| | |
|---|---|
| Q501 | C-2 |
| Q502 | C-1 |
| Q503 | C-2 |
| Q504 | B-3 |
| Q601 | B-5 |
| Q606 | C-5 |
| Q609 | A-4 |
| Q612 | A-1 |
| Q613 | A-1 |
| Q701 | D-3 |
| Q702 | D-3 |
| Q703 | D-4 |
| Q706 | E-3 |
| Q707 | E-4 |
| Q710 | D-4 |
| Q711 | D-4 |
| Q712 | D-5 |
| Q720 | G-2 |
| Q722 | G-5 |
| Q723 | G-5 |
| Q724 | G-5 |
| Q802 | A-4 |
| Q803 | A-3 |
| Q804 | A-3 |
| Q805 | A-2 |
| Q811 | C-5 |
| Q901 | F-6 |
| Q902 | F-6 |
| Q903 | F-5 |
| Q904 | F-5 |

**HK-5** BOARD (COMPONENT SIDE)

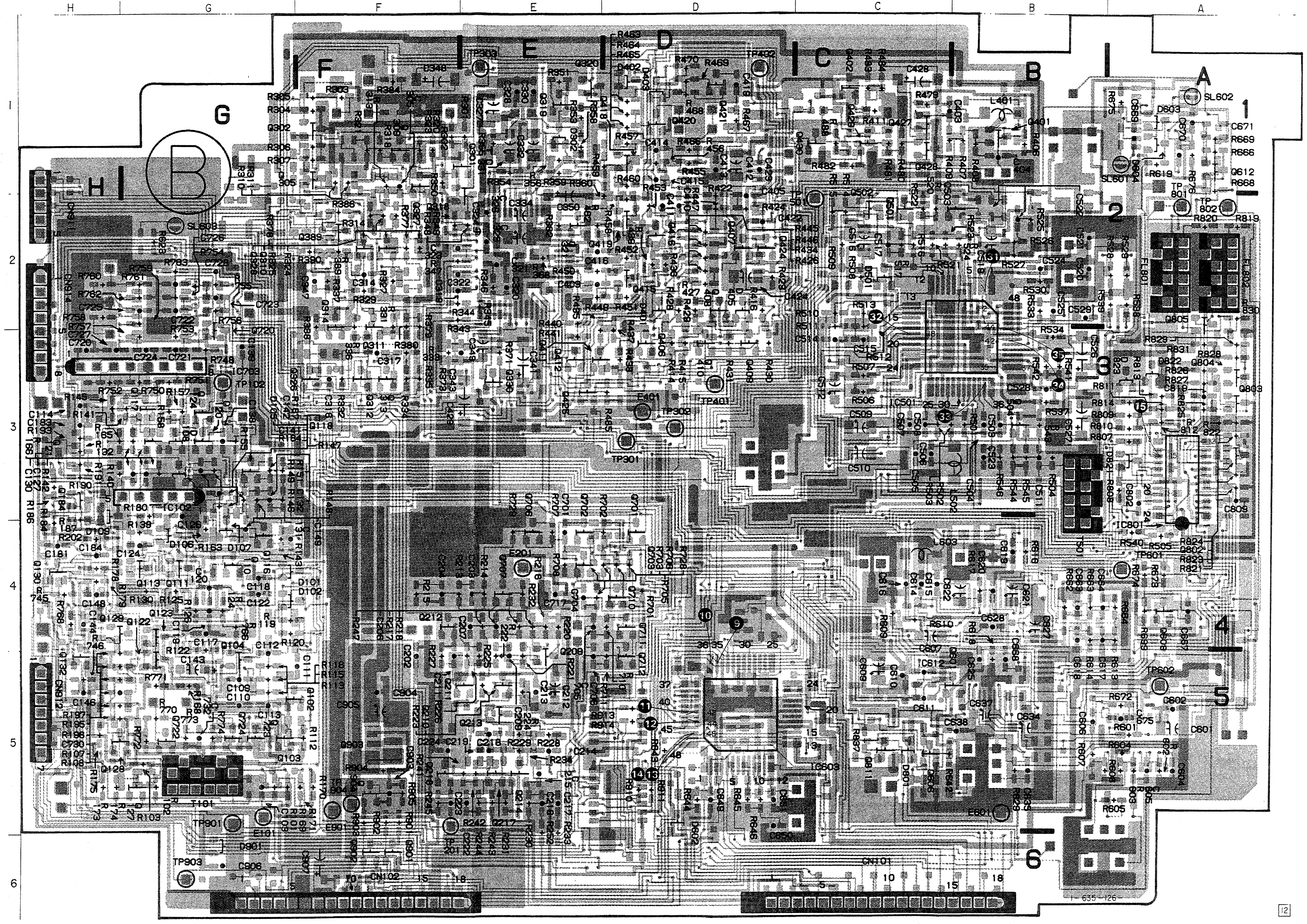

A
B
C
D
E
F
G
H
1
2
3
4
5
6
LOT NO.
S NO.
HK-5 1-635-126-12
SONY
MADE IN JAPAN
DIP
A NO.
CN101
CN102
12

**HK-5** BOARD (CONDUCTOR SIDE)

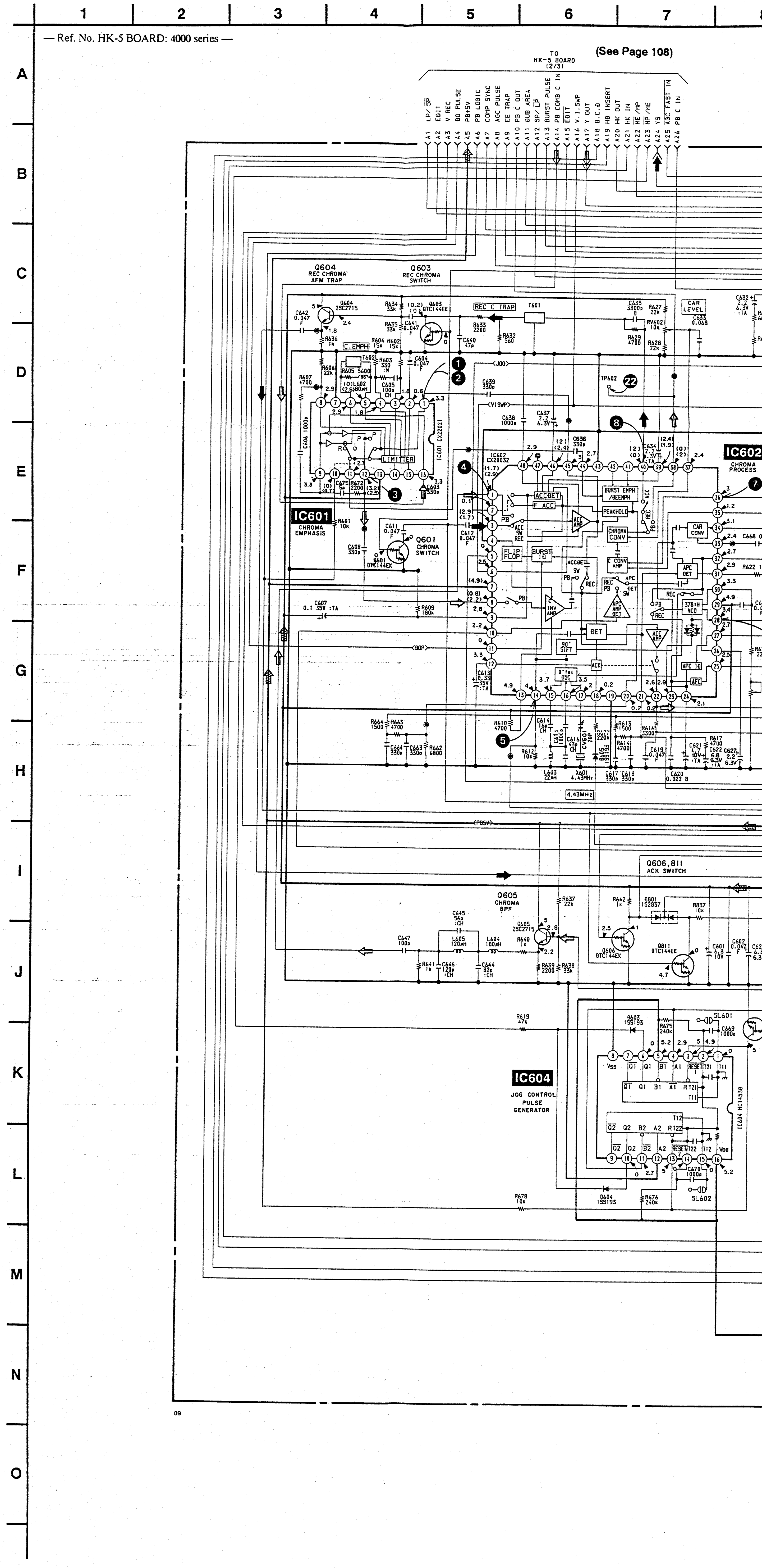


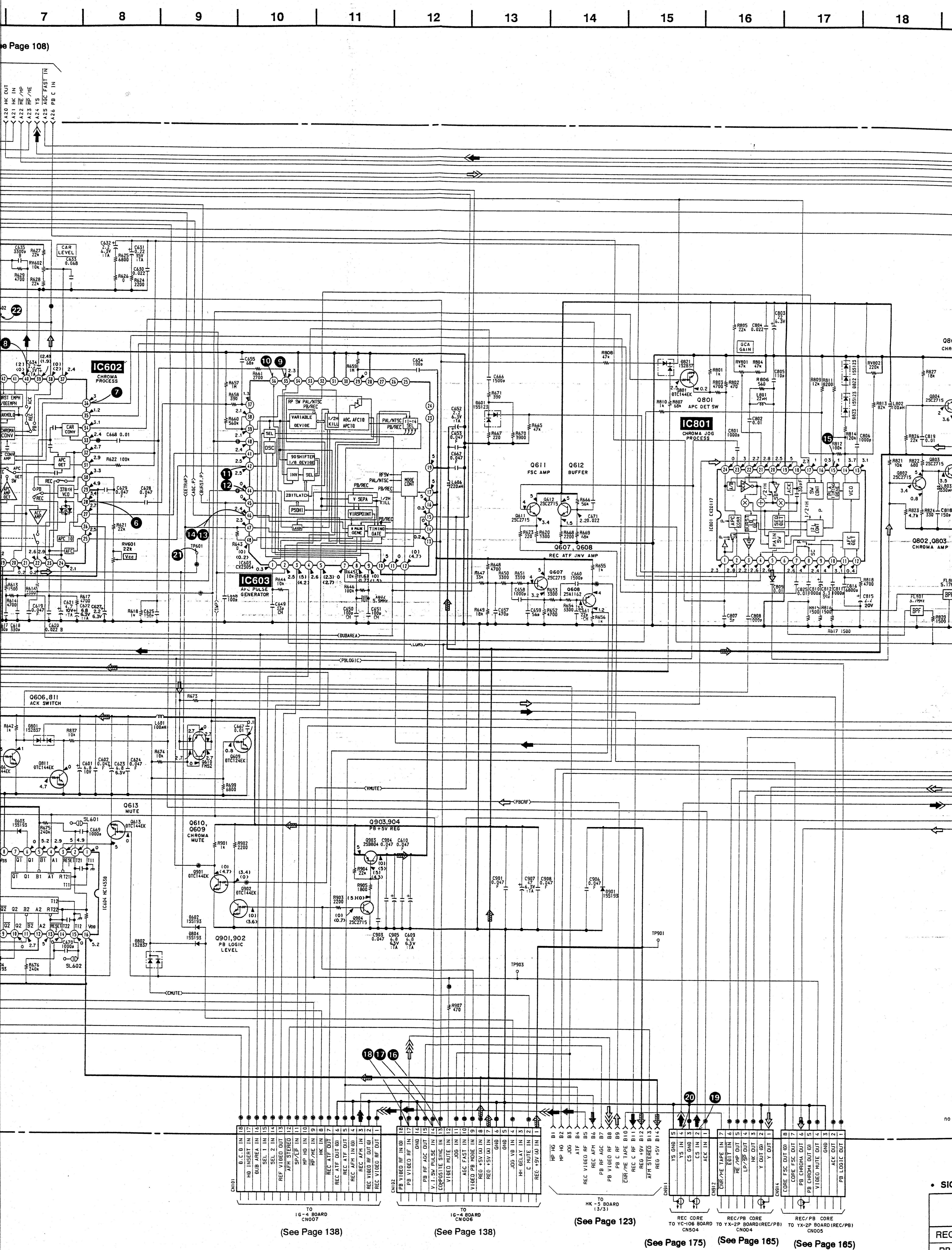

G
H
G
H
19
20
A
Y
TP904
E901
TP901
TP903
12

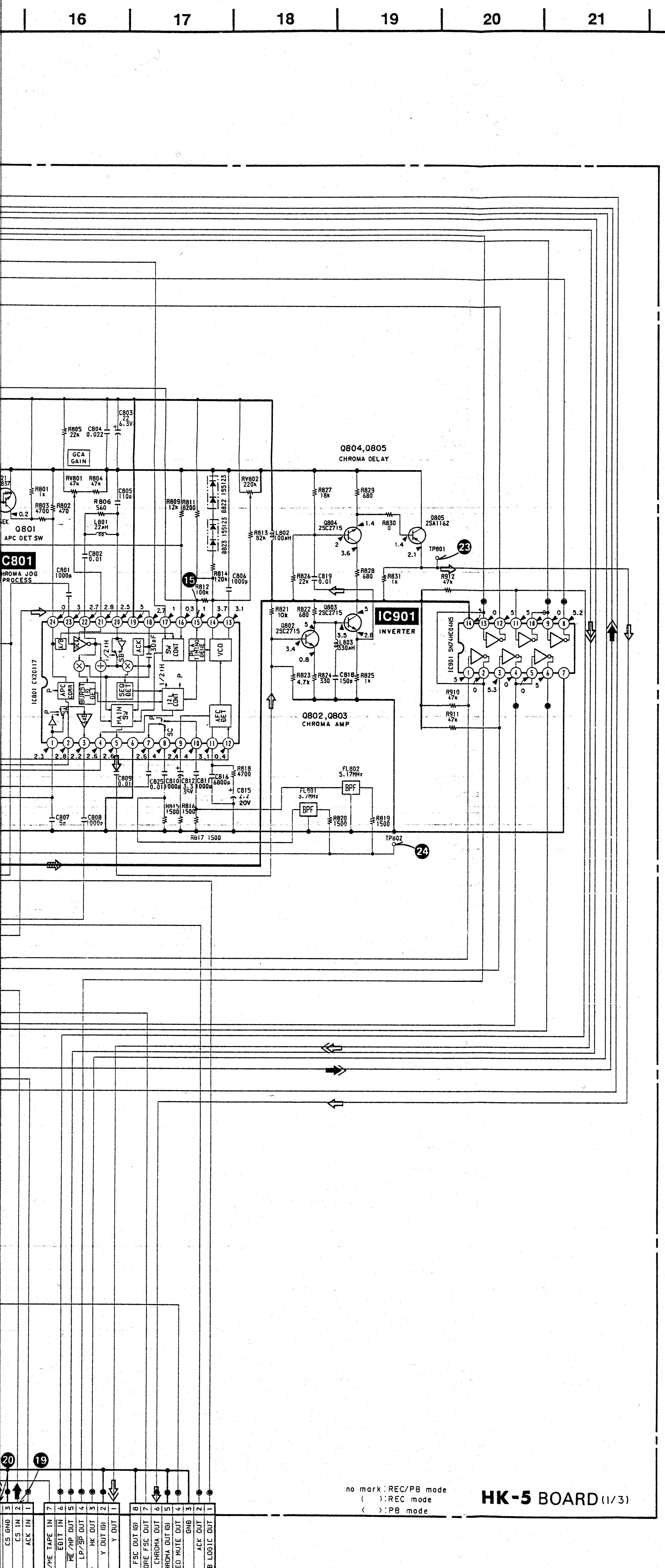
**HK-5** BOARD (CONDUCTOR SIDE)


H
G
F
E
D
C
B
A
1
2
3
4
5
6
B
CN101
CN102
IC101
IC102
IC501
IC603
IC612
IC801
SL602
SL601
SL603
TP301
TP302
TP303
TP401
TP402
TP601
TP602
TP901
TP903
E101
E201
E401
E601
E901
12

## HK-5 (CHROMA SIGNAL PROCESS) SCHEMATIC DIAGRAM


1
2
3
4
5
6
7
A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
— Ref. No. HK-5 BOARD: 4000 series —
TO HK-5 BOARD (2/3)
(See Page 108)
A1 LP/SP
A2 EDIT
A3 V REC
A4 DO PULSE
A5 PB+5V
A6 PB LOGIC
A7 COMP SYNC
A8 AGC PULSE
A9 EE TRAP
A10 PB C OUT
A11 DUB AREA
A12 SP/LP
A13 BURST PULSE
A14 PB COMB C IN
A15 EDIT
A16 V.I.SWP
A17 Y OUT
A18 D.C.D
A19 HD INSERT
A20 HK OUT
A21 HK IN
A22 ME/MP
A23 MP/ME
A24 YS
A25 AGC FAST IN
A26 PB C IN
Q604 REC CHROMA AFM TRAP
Q603 REC CHROMA SWITCH
REC C TRAP
T601
C.EMPH
LIMITTER
IC601 CX22021
IC601 CHROMA EMPHASIS
Q601 CHROMA SWITCH
IC602 CX20032
IC602 CHROMA PROCESS
CAR LEVEL
TP602
ACC DET
F ACC
BURST EMPH /DEEMPH
PEAKHOLD
ACC AMP
CHROMA CONV
FLIP FLOP
BURST ID
C CONV AMP
APC DET
INV AMP
APC AMP DET
3781H VCO
DET
ACC AMP
90° SIFT
X'tal OSC
ACK
APC ID
AFC
CAR CONV
X601 4.43MHz
4.43MHz
Q606,811 ACK SWITCH
Q605 CHROMA BPF
IC604 JOG CONTROL PULSE GENERATOR
IC604 HC14538
SL601
SL602
D603 1SS193
D604 1SS193
09

7
8
9
10
11
12
13
14
15
16
17
18
(See Page 108)
IC602
CHROMA PROCESS
IC603
APC PULSE GENERATOR
CX23054
IC801
CHROMA JOG PROCESS
CX20117
Q801
APC DET SW
Q611
FSC AMP
Q612
BUFFER
Q607, Q608
REC ATF JNV AMP
Q606,811
ACK SWITCH
Q613
MUTE
Q610,
Q609
CHROMA MUTE
Q903,904
PB +5V REG
Q901,902
PB LOGIC LEVEL
Q802,Q803
CHROMA AMP
IC604 MC14538
CAR LEVEL
GCA GAIN
TP601
TP901
TP903
SL601
SL602
<DUBAREA>
<PBLOGIC>
<VMUTE>
<PBCRF>
<CMUTE>
CN101
TO IG-4 BOARD CN007
(See Page 138)
CN102
TO IG-4 BOARD CN006
(See Page 138)
TO HK-5 BOARD (3/3)
(See Page 123)
CN911
REC CORE TO YC-106 BOARD CN504
(See Page 175)
CN912
REC/PB CORE TO YX-2P BOARD(REC/PB) CN004
(See Page 165)
CN914
REC/PB CORE TO YX-2P BOARD(REC/PB) CN005
(See Page 165)
A20 HK OUT
A21 HK IN
A22 HE/HP
A23 HP/HE
A24 YS
A25 AGC FAST IN
A26 PB C IN
B.C.D IN
HD INSERT IN
DUB AREA IN
SEL 1 IN
SEL 2 IN
REF VIDEO OUT
AFM STEREO
SP/LP IN
HP HG IN
HP/HE IN
HK IN
REC ATF OUT
REC ATF OUT (G)
REC ATF IN (G)
REC AFM IN
REC VIDEO RF OUT (G)
REC VIDEO RF OUT
PB VIDEO RF IN (G)
PB VIDEO RF IN
GND
PB RF AGC OUT
V.I.SW PULSE IN
COMPOSITE SYNC IN
VIDEO MUTE IN
JOG IN
AGC FAST IN
VIDEO PB MODE IN
REG +5V (A) IN
REG +5V (A) IN
GND
GND
JOG VD IN
H↑ DELAY IN
C MUTE IN
REC +5V (A) IN
HP HG
HP HG
JOG
ATF
REC VIDEO RF
REC AFM
PB RF AGC
PB VIDEO RF
PB C RF
CNR/HE TAPE IN
REC C RF
REG 9V
AFM STEREO
REG +5V
YS GND
YS IN
CS GND
CS IN
ACK IN
CNR/HE TAPE IN
EDIT IN
HE/HP OUT
LP/SP OUT
HK OUT
Y OUT (G)
Y OUT
CORE FSC OUT (G)
CORE FSC OUT
PB CHROMA OUT (G)
PB CHROMA OUT
VIDEO MUTE OUT
GND
ACK OUT
PB LOGIC OUT
REC
PB


16
17
18
19
20
21
22
GCA GAIN
Q801 APC DET SW
IC801 CHROMA JOG PROCESS
IC801 CX20117
Q804,Q805 CHROMA DELAY
Q804 2SC2715
Q805 2SA1162
TP801
IC901 INVERTER
IC901 SN74HC04NS
Q802 2SC2715
Q803 2SC2715
Q802,Q803 CHROMA AMP
FL801 3.7MHz
FL802 5.17MHz
BPF
TP802
APC DET
BURST DET
MAIN SW
SEQ DET
SW CONT
VCO
AFC DET
1/2H
SC
CN912
CS GND
CS IN
ACK IN
CNR/ME TAPE IN
EDIT IN
ME/MP OUT
LP/SP OUT
HK OUT
Y OUT (G)
Y OUT
CN914
CORE FSC OUT (G)
CORE FSC OUT
PB CHROMA OUT (G)
PB CHROMA OUT
VIDEO MUTE OUT
GND
ACK OUT
PB LOGIC OUT
no mark : REC/PB mode
( ) : REC mode
< > : PB mode

C CORE
-106 BOARD
CN504

e 175)

REC/PB CORE
TO YX-2P BOARD (REC/PB)
CN004
(See Page 165)

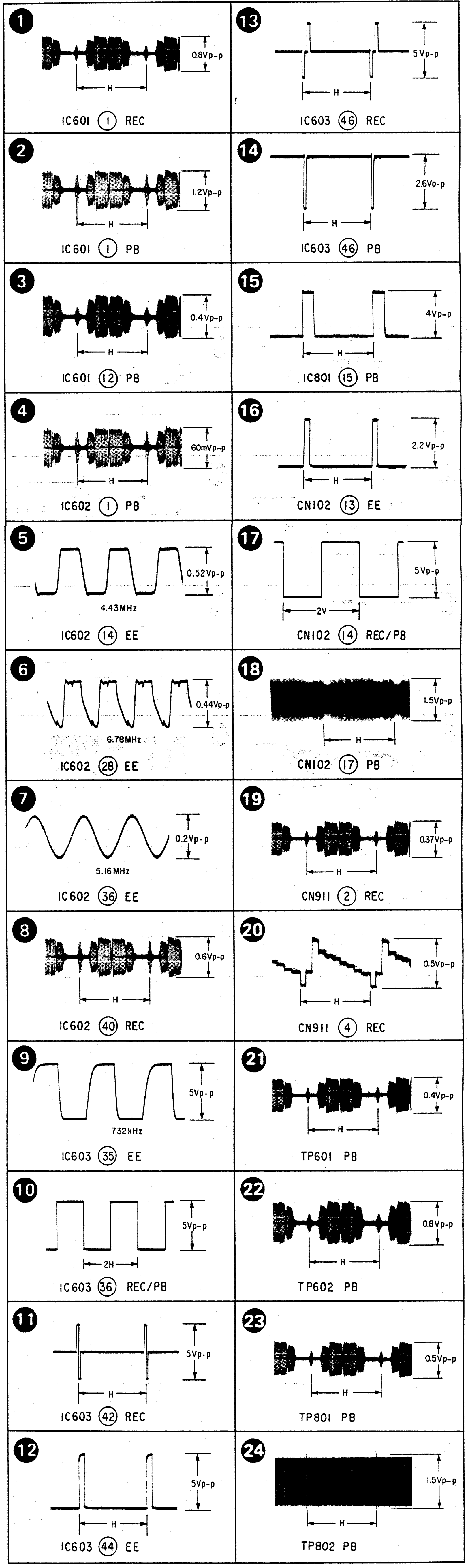
REC/PB CORE
TO YX-2P BOARD (REC/PB)
CN005
(See Page 165)

HK-5 BOARD (1/3)

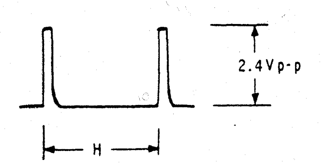
• SIGNAL PATH

| | VIDEO SIGNAL | | | AUDIO SIGNAL |
|---|---|---|---|---|
| | CHROMA | Y | Y/CHROMA/DATA | |
| REC | ➡ | ⇛ | ⇛» | ➡ |
| PB | ⇨ | ⇨ | ⇨» | ⇨ |

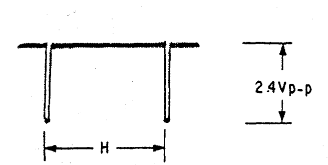
## HK-5 BOARD (1/3)



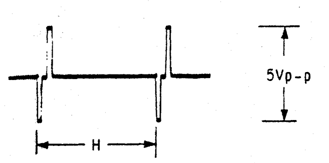
## HK-5 BOARD (2/3)

㉕


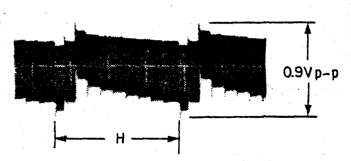
IC301 ② EE

㉖


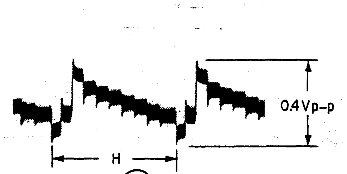
IC301 ⑤ PB

㉗


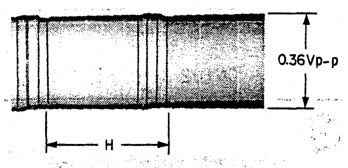
IC301 ⑤ REC

㉘


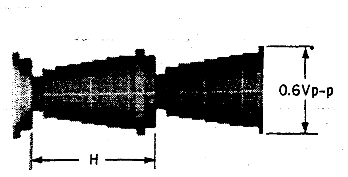
IC301 ⑫ PB

㉙


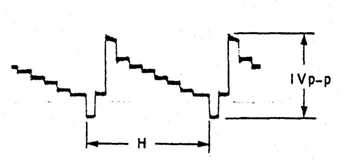
IC301 ㊵ PB

㉚


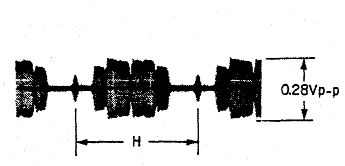
IC301 ㊽ PB

㉛


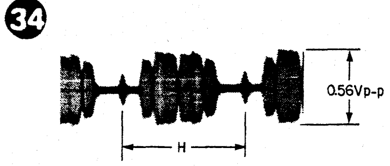
IC501 ② PB

㉜


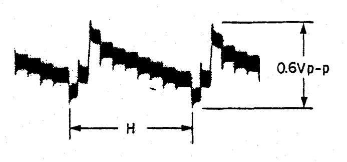
IC501 ⑱ EE

㉝


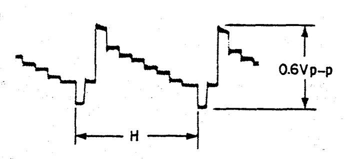
IC501 ㉟ PB

㉞


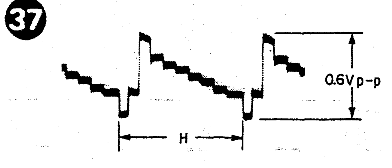
IC501 ㊷ PB

㉟


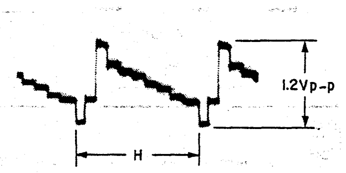
IC501 ㊹ PB

㊱


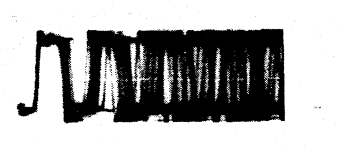
TP301 REC

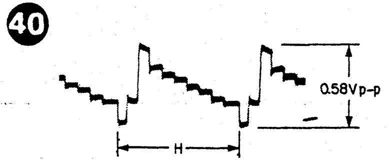
㊲


TP302 PB

㊳


TP303 PB

㊴

H: 0.1µsec/DIV
V: 50mV/DIV
TP401 REC

㊵


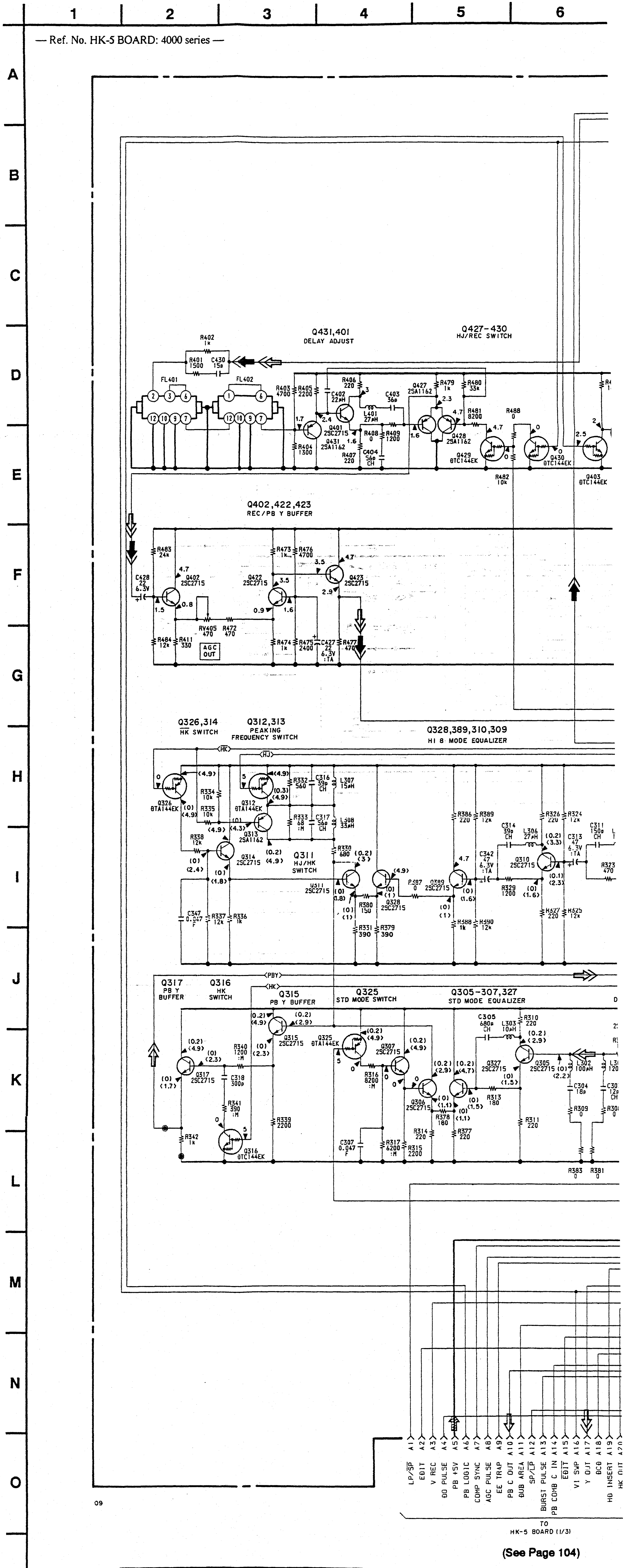
TP402 EE

- **SIGNAL PATH**

| | VIDEO SIGNAL | | | AUDIO SIGNAL |
|---|---|---|---|---|
| | CHROMA | Y | Y/CHROMA/DATA | |
| REC | | ➡ | | |
| PB | ⇨ | ⇨ | | |

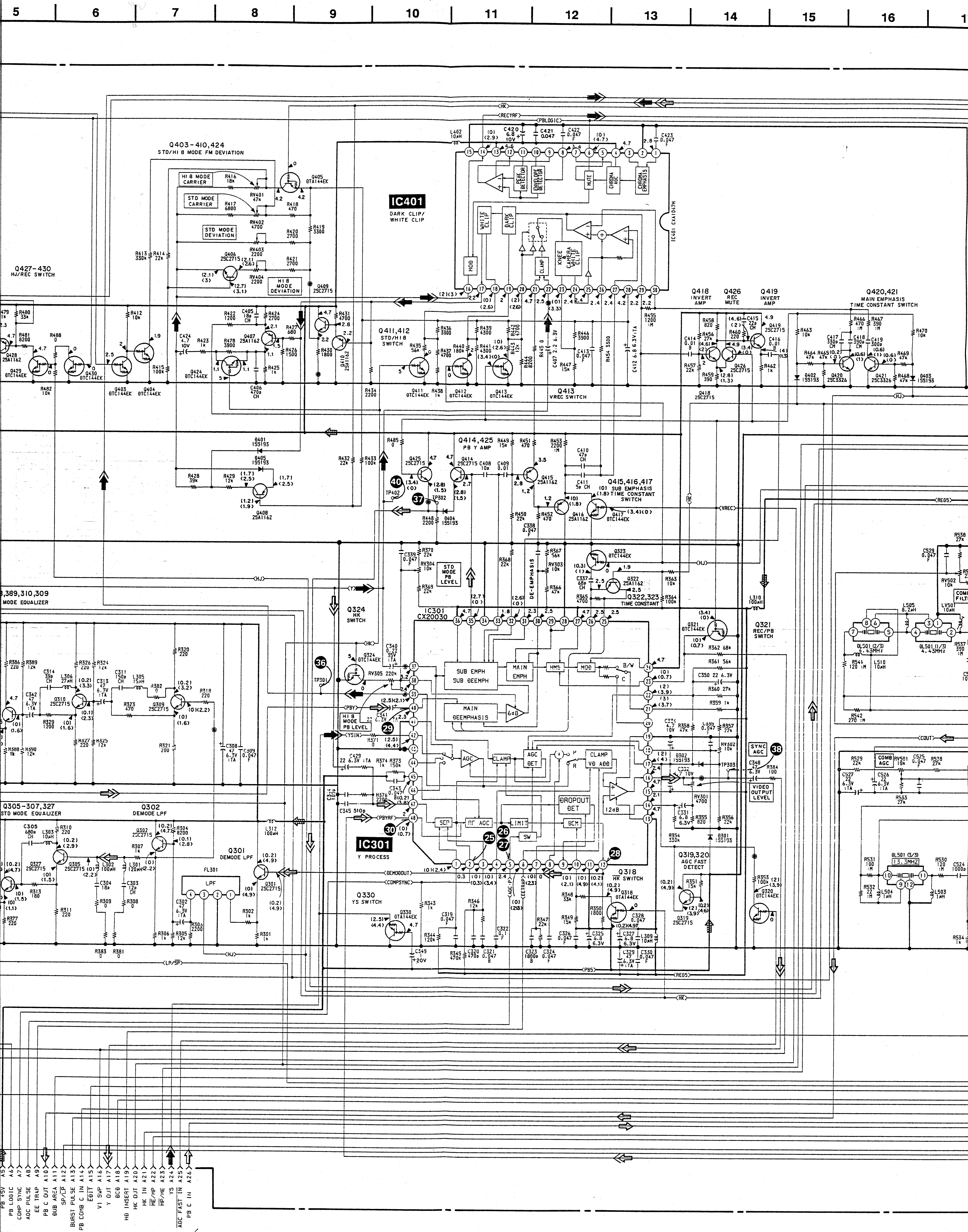
## HK-5 (Y SIGNAL PROCESS) SCHEMATIC DIAGRAM

— Ref. No. HK-5 BOARD: 4000 series —

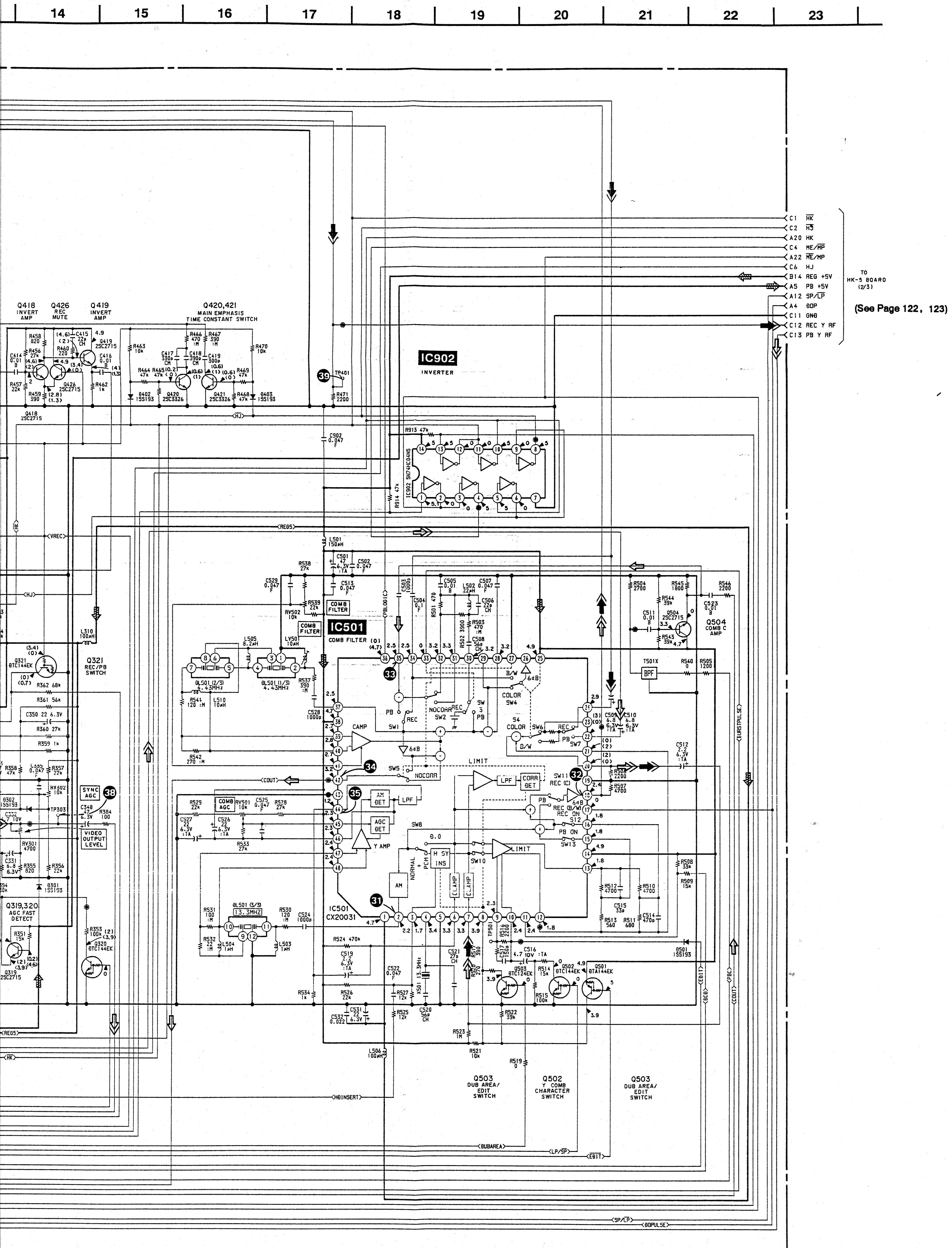

1
2
3
4
5
6
A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
Q431,401 DELAY ADJUST
Q427-430 HJ/REC SWITCH
FL401
FL402
Q402,422,423 REC/PB Y BUFFER
AGC OUT
Q326,314 HK SWITCH
Q312,313 PEAKING FREQUENCY SWITCH
Q328,389,310,309 HI 8 MODE EQUALIZER
Q311 HJ/HK SWITCH
Q317 PB Y BUFFER
Q316 HK SWITCH
Q315 PB Y BUFFER
Q325 STD MODE SWITCH
Q305-307,327 STD MODE EQUALIZER
LP/SP A1
EDIT A2
V REC A3
60 PULSE A4
PB +5V A5
PB LOGIC A6
COMP SYNC A7
AGC PULSE A8
EE TRAP A9
PB C OUT A10
DUB AREA A11
SP/LP A12
BURST PULSE A13
PB COMB C IN A14
EDIT A15
V1 SWP A16
Y OUT A17
8C0 A18
HD INSERT A19
TO HK-5 BOARD (1/3)
09

(See Page 104)

VIDEO VIDEO


5
6
7
8
9
10
11
12
13
14
15
16
Q403-410,424
STD/HI 8 MODE FM DEVIATION
HI 8 MODE CARRIER
STD MODE CARRIER
STD MODE DEVIATION
HI 8 MODE DEVIATION
Q405 DTA144EK
Q406 2SC2715
Q409 2SC2715
Q427-430
HJ/REC SWITCH
Q428 2SA1162
Q429 DTC144EK
Q430 DTC144EK
Q403 DTC144EK
Q404 DTC144EK
Q407 2SA1162
Q424 DTC144EK
Q410 2SA1162
Q401 1SS193
Q405 1SS193
Q408 2SA1162
IC401
DARK CLIP/ WHITE CLIP
IC401 CXA1047M
PEAK DETECTOR
ENVELOPE DETECTOR
MUTE
CHROMA AGC
CHROMA EMPHASIS
WHITE CLIP
DARK CLIP
MOD
CLAMP
KNEE & CARRIER WHITE CLIP
Q411,412
STD/HI8 SWITCH
Q411 DTC144EK
Q412 DTC144EK
Q413 DTC144EK
Q413
VREC SWITCH
Q418 INVERT AMP
Q426 REC MUTE
Q419 INVERT AMP
Q420,421
MAIN EMPHASIS TIME CONSTANT SWITCH
Q418 2SC2715
Q426 2SC2715
Q419 2SC2715
Q420 2SC3326
Q421 2SC3326
D402 1SS193
D403 1SS193
Q414,425
PB Y AMP
Q425 2SC2715
Q414 2SC2715
Q415 2SA1162
Q415,416,417
SUB EMPHASIS TIME CONSTANT SWITCH
Q416 2SA1162
Q417 DTC144EK
TP402
TP302
D404 1SS193
STD MODE PB LEVEL
DE-EMPHASIS
Q323 DTC144EK
Q322 2SA1162
Q322,323
TIME CONSTANT
IC301 CX20030
IC301
Y PROCESS
Q324
HK SWITCH
Q324 DTC144EK
TP301
SUB EMPH
SUB DEEMPH
MAIN EMPH
MAIN DEEMPHASIS
HI 8 MODE PB LEVEL
AGC
CLAMP
AGC DET
CLAMP V0 ADD
B/W
DROPOUT DET
DCM
SCP
RF AGC
LIMIT
SW
12dB
6dB
Q321 DTC144EK
Q321
REC/PB SWITCH
SYNC AGC
VIDEO OUTPUT LEVEL
D302 1SS193
D301 1SS193
Q319,320
AGC FAST DETECT
Q319 2SC2715
Q320 DTC144EK
Q318
HK SWITCH
Q318 DTA144EK
Q330
YS SWITCH
Q330 DTA144EK
,389,310,309
MODE EQUALIZER
Q310 2SC2715
Q309 2SC2715
Q305-307,327
STD MODE EQUALIZER
Q327 2SC2715
Q305 2SC2715
Q302
DEMODE LPF
Q302 2SC2715
Q301
DEMODE LPF
Q301 2SC2715
FL301
LPF
COMB FILTER
DL501 (2/3) 4.43MHz
DL501 (1/3) 4.43MHz
DL501 (3/3) 13.3MHz
COMB AGC
(HK)
(RECYRF)
(PBLOGIC)
(HJ)
(Y)
(PBY)
(YSIN)
(PBYRF)
(DEMODOUT)
(COMPSYNC)
(LP/SP)
(PBS)
(REGS)
(VREC)
(COUT)
PB +5V A5
PB LOGIC A6
COMP SYNC A7
AGC PULSE A8
EE TRAP A9
PB C OUT A10
DUB AREA A11
SP/LP A12
BURST PULSE A13
PB COMB C IN A14
EDIT A15
VI SWP A16
Y OUT A17
DCO A18
HD INSERT A19
HK OUT A20
HK IN A21
HE/MP A22
MP/ME A23
YS A24
AGC FAST IN A25
PB C IN A26
TO HK-5 BOARD (1/3)
25
26
27
28
29
30
36
37
38
40

(See Page 104)


14
15
16
17
18
19
20
21
22
23
C1 HK
C2 HS
A20 HK
C4 ME/MP
A22 ME/MP
C6 HJ
B14 REG +5V
A5 PB +5V
A12 SP/LP
A4 BOP
C11 GND
C12 REC Y RF
C13 PB Y RF
TO HK-5 BOARD (2/3)
(See Page 122, 123)
Q418 INVERT AMP
Q426 REC MUTE
Q419 INVERT AMP
Q420,421 MAIN EMPHASIS TIME CONSTANT SWITCH
IC902
INVERTER
IC902 SN74HC04NS
TP401
IC501
COMB FILTER
COMB FILTER
IC501 CX20031
CAMP
Y AMP
LIMIT
LPF
CORR DET
AM DET
AGC DET
H SY INS
CLAMP
CLAMP
AM
NORMAL
PCM
SW1
SW2
SW3
SW4
SW5
SW6
SW7
SW8
SW10
SW11
S12
SW13
NOCORR
COLOR
B/W
REC
PB
PB ON
REC ON
REC (B/W)
REC (C)
6dB
COMB AGC
SYNC AGC
VIDEO OUTPUT LEVEL
Q321 REC/PB SWITCH
Q319,320 AGC FAST DETECT
Q504 COMB C AMP
TS01X
BPF
Q503 DUB AREA/ EDIT SWITCH
Q502 Y COMB CHARACTER SWITCH
Q503 DUB AREA/ EDIT SWITCH
ØL501 (1/3) 4.43MHz
ØL501 (2/3) 4.43MHz
ØL501 (3/3) 13.3MHZ
X501 13.3MHz
⟨REG5⟩
⟨VREC⟩
⟨HJ⟩
⟨HK⟩
⟨COUT⟩
⟨HBINSERT⟩
⟨BUBAREA⟩
⟨LP/SP⟩
⟨EBIT⟩
⟨SP/LP⟩
⟨BOPULSE⟩
⟨EURSTPULSE⟩
⟨PBLOOIC⟩
⟨EDIT⟩
⟨BCO⟩
⟨PBC⟩
31
32
33
34
35
38
39

no mark : REC/PB mode
( ) : REC mode
〈 〉: PB mode

**HK-5 BOARD** (2/3)

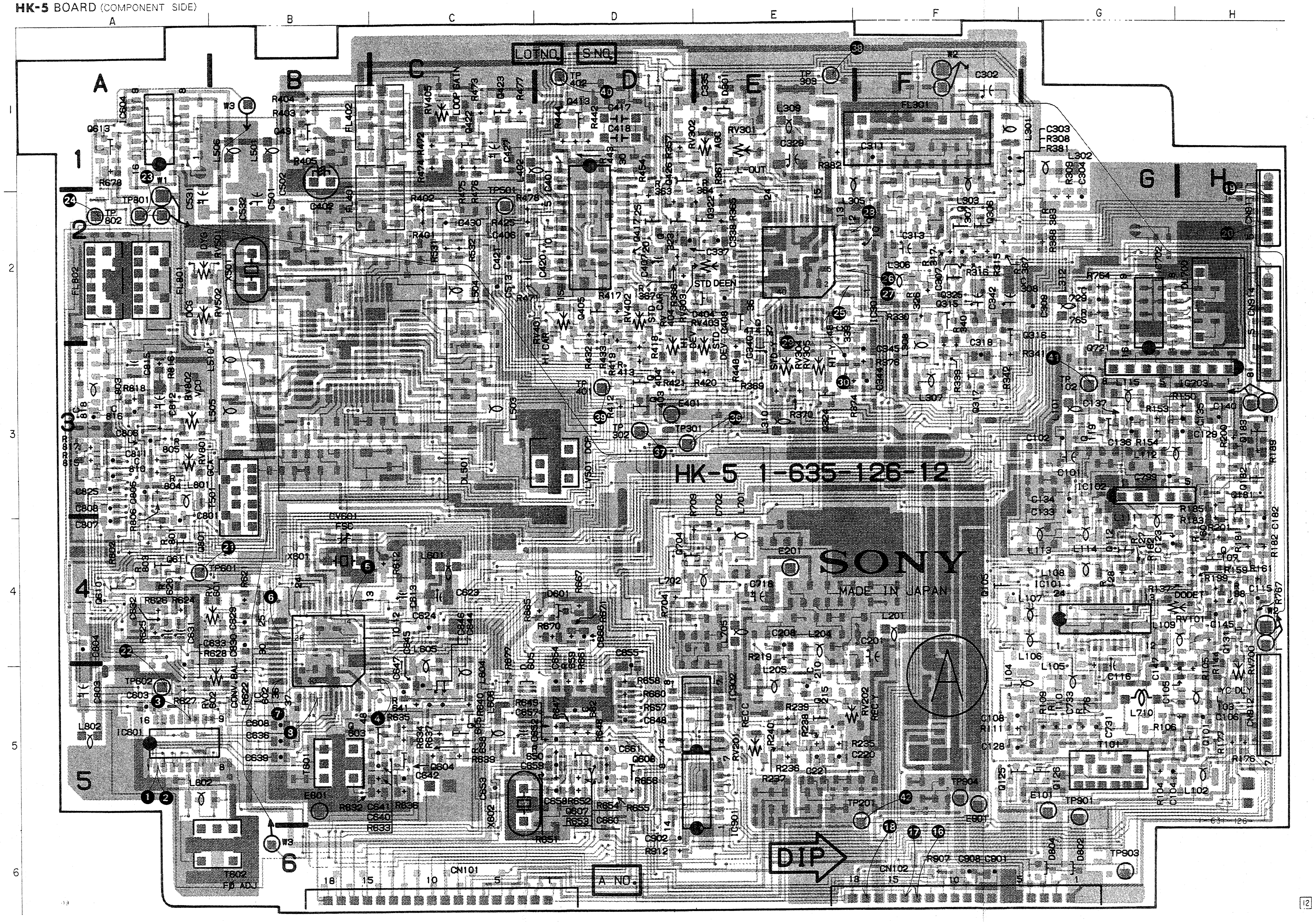
## HK-5 (CHROMA SIGNAL PROCESS, Y SIGNAL PROCESS, Y/C/AFM MIX) PRINTED WIRING BOARD

— Ref. No. HK-5 BOARD: 4000 series —

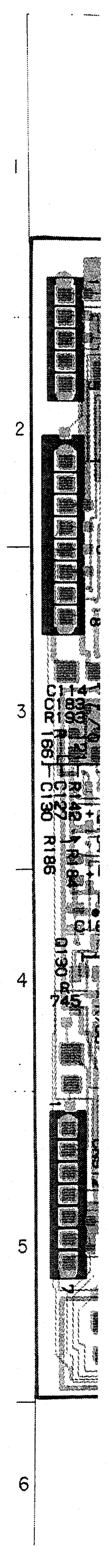
| HK-5 BOARD (COMPONENT SIDE) | |
|---|---|
| D301 | E-1 |
| D404 | E-2 |
| D601 | D-4 |
| D605 | C-5 |
| D802 | G-6 |
| D804 | G-6 |
| IC101 | G-4 |
| IC102 | G-3 |
| IC301 | F-2 |
| IC401 | D-1 |
| IC601 | A-5 |
| IC602 | B-5 |
| IC702 | G-2 |
| IC703 | H-3 |
| IC901 | E-5 |
| IC902 | E-5 |
| Q101 | H-5 |
| Q105 | F-4 |
| Q107 | H-4 |
| Q112 | G-4 |
| Q119 | G-3 |
| Q125 | F-5 |
| Q126 | G-5 |
| Q131 | H-4 |
| Q181 | H-3 |
| Q182 | H-3 |
| Q215 | E-5 |
| Q306 | F-2 |
| Q307 | F-2 |
| Q315 | F-2 |
| Q316 | G-2 |
| Q317 | F-3 |
| Q322 | E-2 |
| Q323 | D-2 |
| Q324 | E-3 |
| Q325 | F-2 |
| Q403 | D-3 |
| Q404 | D-3 |
| Q405 | D-2 |
| Q413 | D-1 |
| Q414 | E-2 |
| Q417 | D-2 |
| Q422 | C-1 |
| Q423 | C-1 |
| Q426 | D-1 |
| Q431 | B-1 |
| Q603 | B-5 |
| Q604 | C-5 |
| Q605 | C-5 |
| Q607 | D-5 |
| Q608 | D-5 |
| Q610 | A-4 |
| Q611 | A-4 |
| Q704 | D-4 |
| Q721 | G-3 |
| Q801 | A-4 |

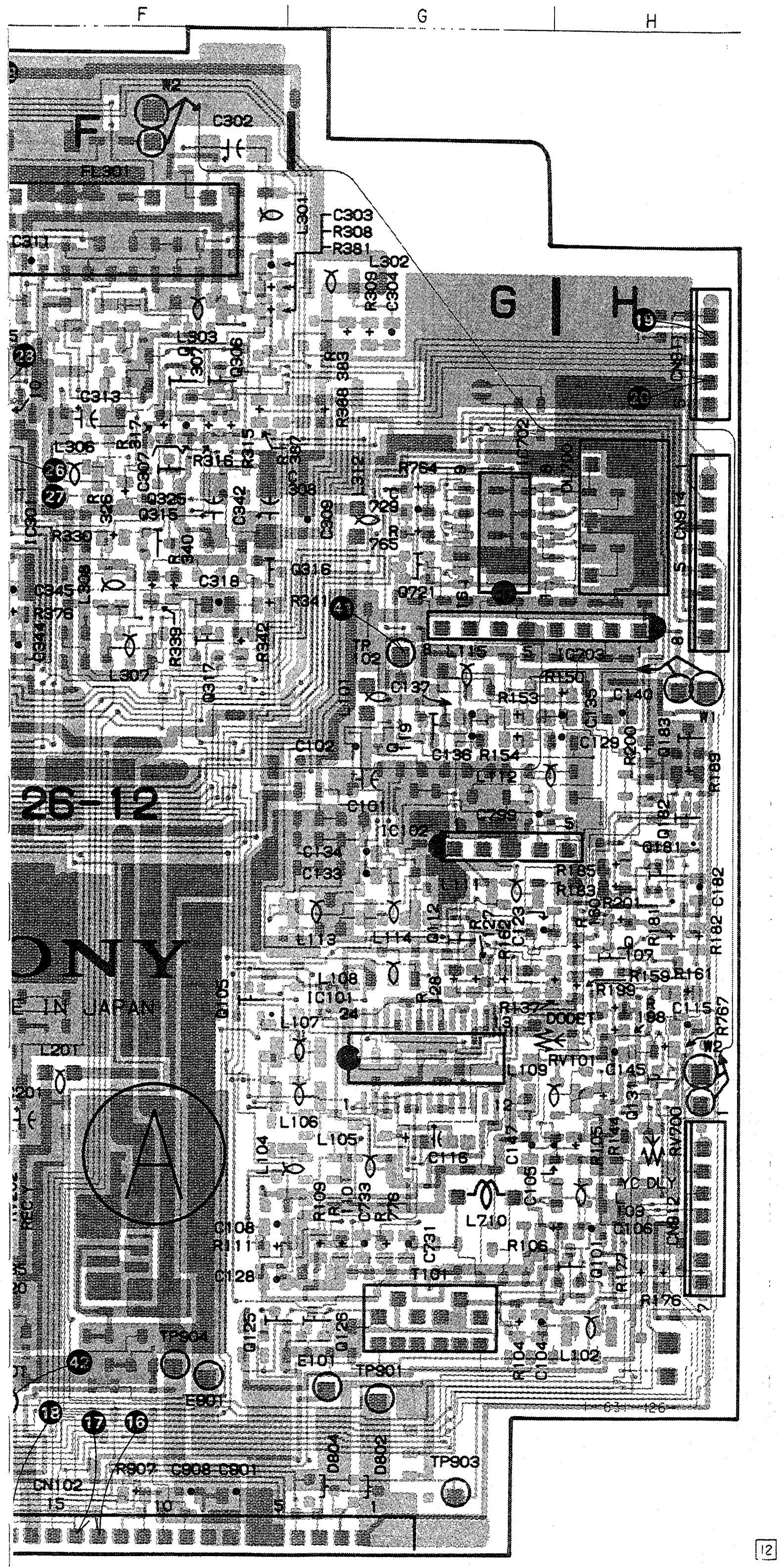
| HK-5 BOARD (CONDUCTOR SIDE) | |
|---|---|
| D101 | F-4 |
| D102 | F-4 |
| D105 | G-3 |
| D106 | G-4 |
| D107 | F-4 |
| D108 | G-3 |
| D109 | H-4 |
| D302 | E-1 |
| D401 | D-2 |
| D402 | D-1 |
| D403 | D-1 |
| D405 | D-2 |
| D501 | C-2 |
| D602 | D-5 |
| D603 | A-1 |
| D604 | A-1 |
| D801 | C-5 |
| D821 | A-3 |
| D822 | A-3 |
| D901 | G-6 |
| IC501 | C-3 |
| IC603 | C-5 |
| IC801 | A-4 |
| Q102 | F-5 |
| Q103 | G-5 |
| Q104 | G-4 |
| Q110 | G-4 |
| Q111 | G-4 |
| Q113 | H-4 |
| Q116 | F-4 |
| Q117 | G-3 |
| Q118 | F-3 |
| Q120 | G-3 |
| Q121 | H-3 |
| Q122 | G-4 |
| Q123 | G-4 |
| Q127 | G-5 |
| Q128 | H-5 |
| Q129 | H-4 |
| Q130 | H-4 |
| Q132 | H-5 |
| Q183 | H-3 |
| Q184 | H-3 |
| Q209 | E-4 |
| Q210 | F-5 |
| Q211 | F-5 |
| Q212 | F-4 |
| Q213 | E-5 |
| Q214 | E-5 |
| Q217 | E-5 |
| Q218 | F-5 |
| Q301 | E-1 |
| Q302 | G-1 |
| Q305 | G-1 |
| Q309 | F-1 |
| Q310 | G-2 |
| Q311 | F-3 |
| Q312 | F-3 |
| Q313 | F-3 |
| Q314 | F-2 |
| Q318 | F-2 |
| Q319 | E-1 |
| Q320 | E-1 |
| Q321 | E-2 |
| Q326 | G-3 |
| Q327 | F-2 |
| Q328 | G-2 |
| Q330 | E-3 |
| Q389 | F-2 |
| Q401 | B-1 |
| Q402 | C-1 |
| Q406 | D-3 |
| Q407 | D-2 |
| Q408 | D-2 |
| Q409 | D-3 |
| Q410 | D-3 |
| Q411 | E-3 |
| Q412 | E-3 |
| Q415 | D-2 |
| Q416 | D-2 |
| Q418 | D-1 |
| Q419 | D-2 |
| Q420 | D-1 |
| Q421 | D-1 |
| Q424 | D-2 |
| Q425 | E-3 |
| Q427 | C-1 |
| Q428 | C-1 |
| Q429 | C-1 |
| Q430 | C-1 |
| Q501 | C-2 |
| Q502 | C-1 |
| Q503 | C-2 |
| Q504 | B-3 |
| Q601 | B-5 |
| Q606 | C-5 |
| Q609 | A-4 |
| Q612 | A-1 |
| Q613 | A-1 |
| Q701 | D-3 |
| Q702 | D-3 |
| Q703 | D-4 |
| Q706 | E-3 |
| Q707 | E-4 |
| Q710 | D-4 |
| Q711 | D-4 |
| Q712 | D-5 |
| Q720 | G-2 |
| Q722 | G-5 |
| Q723 | G-5 |
| Q724 | G-5 |
| Q802 | A-4 |
| Q803 | A-3 |
| Q804 | A-3 |
| Q805 | A-2 |
| Q811 | C-5 |
| Q901 | F-6 |
| Q902 | F-6 |
| Q903 | F-5 |
| Q904 | F-5 |

**HK-5** BOARD (COMPONENT SIDE)

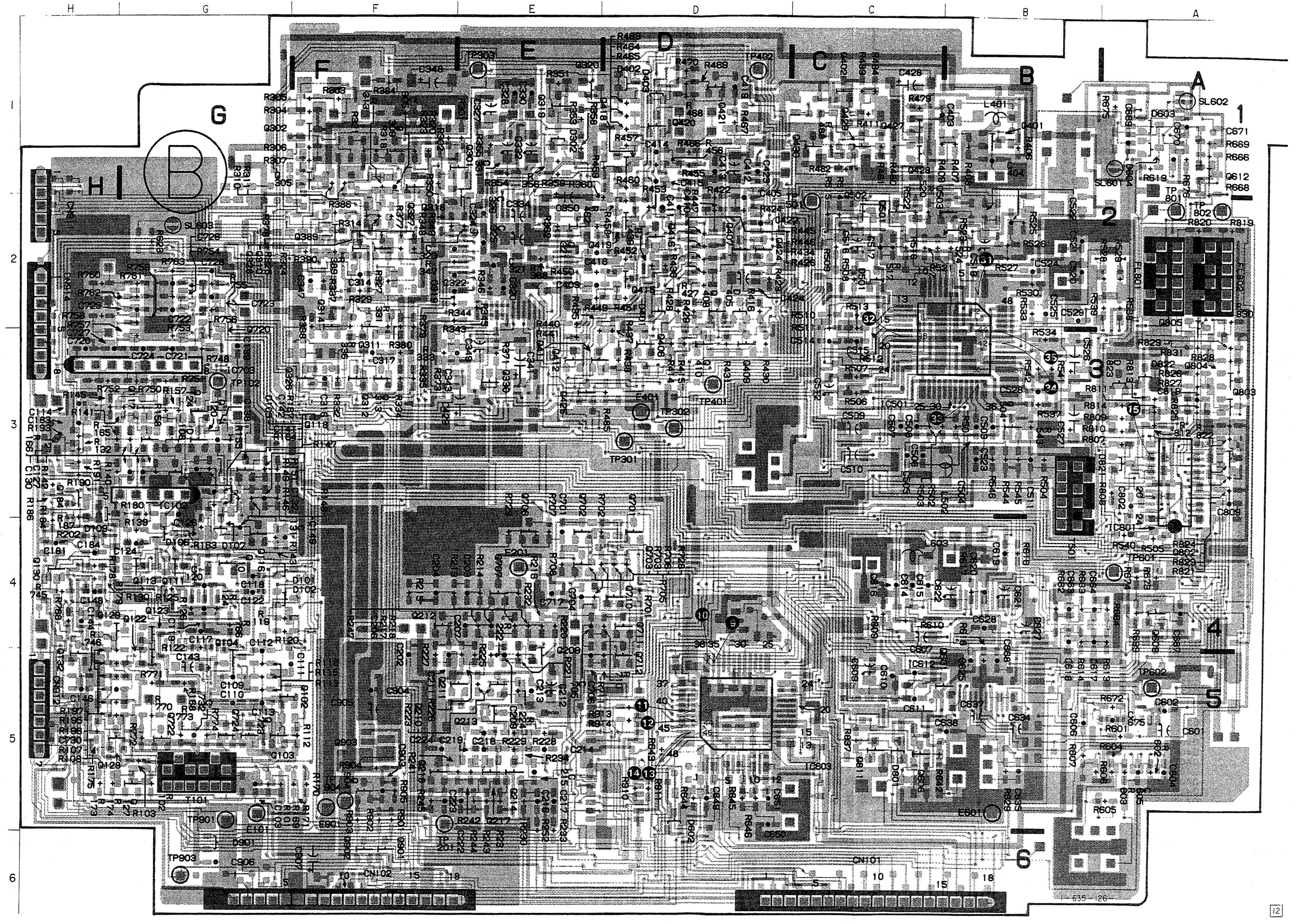


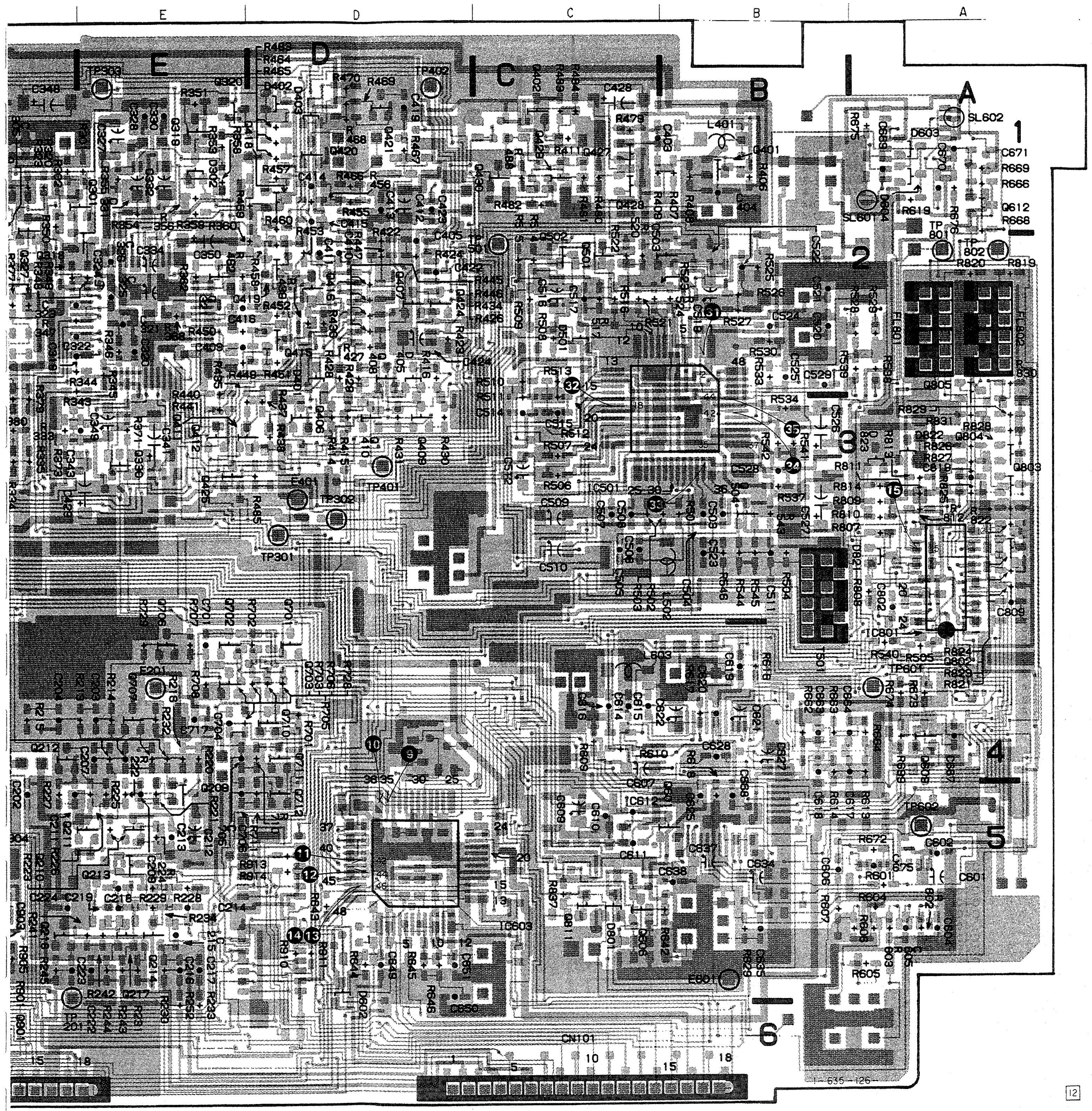
**HK-5**




F
G
H
F
G | H
26-12
ONY
E IN JAPAN
A
CN102
TP903
TP901
TP904
E901
E101
12

**HK-5** BOARD (CONDUCTOR SIDE)


H
G
F
E
D
C
B
A
1
2
3
4
5
6
F
E
D
C
B
A
G
H
B
CN101
CN102
TP901
TP903
TP301
TP302
TP401
TP402
TP601
TP602
E901
E201
E401
E601
IC501
IC801
IC803
T101
12



* A-7062-164-A HK-5 BOARD, COMPLETE
********************
(Ref.No 4,000 Series)

< DIODE >

| | | | |
|---|---|---|---|
| D101 | 8-719-400-18 | DIODE | MA152WK |
| D102 | 8-719-400-18 | DIODE | MA152WK |
| D105 | 8-719-800-76 | DIODE | 1SS226 |
| D106 | 8-719-400-18 | DIODE | MA152WK |
| D107 | 8-719-400-18 | DIODE | MA152WK |
| D108 | 8-719-400-18 | DIODE | MA152WK |
| D109 | 8-719-400-18 | DIODE | MA152WK |
| D301 | 8-719-400-18 | DIODE | MA152WK |
| D302 | 8-719-400-18 | DIODE | MA152WK |
| D401 | 8-719-400-18 | DIODE | MA152WK |
| D402 | 8-719-400-18 | DIODE | MA152WK |
| D403 | 8-719-400-18 | DIODE | MA152WK |
| D404 | 8-719-400-18 | DIODE | MA152WK |
| D405 | 8-719-400-18 | DIODE | MA152WK |
| D501 | 8-719-400-18 | DIODE | MA152WK |
| D601 | 8-719-800-76 | DIODE | 1SS226 |
| D602 | 8-719-400-18 | DIODE | MA152WK |
| D603 | 8-719-400-18 | DIODE | MA152WK |
| D604 | 8-719-400-18 | DIODE | MA152WK |
| D605 | 8-719-400-18 | DIODE | MA152WK |
| D801 | 8-719-400-18 | DIODE | MA152WK |
| D802 | 8-719-400-18 | DIODE | MA152WK |
| D804 | 8-719-400-18 | DIODE | MA152WK |
| D821 | 8-719-400-18 | DIODE | MA152WK |
| D822 | 8-719-800-76 | DIODE | 1SS226 |
| D823 | 8-719-800-76 | DIODE | 1SS226 |
| D901 | 8-719-400-18 | DIODE | MA152WK |

< IC >

| | | | |
|---|---|---|---|
| IC101 | 8-759-233-94 | IC | TA8607F |
| IC102 | 8-759-925-60 | IC | BA401 |
| IC301 | 8-752-002-XX | IC | CX20030 |
| IC401 | 8-752-031-01 | IC | CXA1047M |
| IC501 | 8-752-003-12 | IC | CX20031 |
| IC601 | 8-752-202-10 | IC | CX22021 |
| IC602 | 8-752-003-22 | IC | CX20032 |
| IC603 | 8-752-305-47 | IC | CX23054 |
| IC604 | 8-759-009-51 | IC | MC14538BF |
| IC702 | 8-759-012-00 | IC | MC10H116M |
| IC703 | 8-752-006-12 | IC | CX20061 |
| IC801 | 8-759-202-67 | IC | CX20117 |
| IC901 | 8-759-925-74 | IC | SN74HC04ANS |
| IC902 | 8-759-925-74 | IC | SN74HC04ANS |

< TRANSISTOR >

| | | | |
|---|---|---|---|
| Q101 | 8-729-200-86 | TRANSISTOR | 2SC27140 |
| Q102 | 8-729-901-04 | TRANSISTOR | DTA114EK |
| Q103 | 8-729-200-86 | TRANSISTOR | 2SC27140 |
| Q104 | 8-729-901-01 | TRANSISTOR | DTC144EK |
| Q105 | 8-729-904-07 | TRANSISTOR | FMG2 |
| Q107 | 8-729-201-27 | TRANSISTOR | 2SC2715 |
| Q110 | 8-729-901-01 | TRANSISTOR | DTC144EK |
| Q111 | 8-729-200-86 | TRANSISTOR | 2SC27140 |
| Q112 | 8-729-901-01 | TRANSISTOR | DTC144EK |
| Q113 | 8-729-200-86 | TRANSISTOR | 2SC27140 |
| Q116 | 8-729-201-27 | TRANSISTOR | 2SC2715 |
| Q117 | 8-729-200-86 | TRANSISTOR | 2SC27140 |
| Q118 | 8-729-200-86 | TRANSISTOR | 2SC27140 |
| Q119 | 8-729-200-86 | TRANSISTOR | 2SC27140 |
| Q120 | 8-729-200-86 | TRANSISTOR | 2SC27140 |
| Q121 | 8-729-201-27 | TRANSISTOR | 2SC2715 |
| Q122 | 8-729-901-01 | TRANSISTOR | DTC144EK |
| Q123 | 8-729-901-01 | TRANSISTOR | DTC144EK |
| Q124 | 8-729-901-06 | TRANSISTOR | DTA144EK |
| Q125 | 8-729-901-01 | TRANSISTOR | DTC144EK |
| Q126 | 8-729-201-27 | TRANSISTOR | 2SC2715 |
| Q127 | 8-729-201-27 | TRANSISTOR | 2SC2715 |
| Q128 | 8-729-202-38 | TRANSISTOR | 2SC3326N |
| Q129 | 8-729-201-27 | TRANSISTOR | 2SC2715 |
| Q130 | 8-729-201-27 | TRANSISTOR | 2SC2715 |
| Q131 | 8-729-216-22 | TRANSISTOR | 2SA1162 |
| Q132 | 8-729-201-27 | TRANSISTOR | 2SC2715 |
| Q181 | 8-729-907-46 | TRANSISTOR | IMZ1 |
| Q182 | 8-729-903-10 | TRANSISTOR | FMW1 |
| Q183 | 8-729-200-86 | TRANSISTOR | 2SC27140 |
| Q184 | 8-729-216-22 | TRANSISTOR | 2SA1162 |
| Q209 | 8-729-200-86 | TRANSISTOR | 2SC27140 |
| Q210 | 8-729-200-86 | TRANSISTOR | 2SC27140 |
| Q211 | 8-729-200-86 | TRANSISTOR | 2SC27140 |
| Q212 | 8-729-901-01 | TRANSISTOR | DTC144EK |
| Q213 | 8-729-901-06 | TRANSISTOR | DTA144EK |
| Q214 | 8-729-200-86 | TRANSISTOR | 2SC27140 |
| Q215 | 8-729-902-96 | TRANSISTOR | FMS1 |
| Q217 | 8-729-200-86 | TRANSISTOR | 2SC27140 |
| Q218 | 8-729-200-86 | TRANSISTOR | 2SC27140 |
| Q301 | 8-729-201-27 | TRANSISTOR | 2SC2715 |
| Q302 | 8-729-201-27 | TRANSISTOR | 2SC2715 |
| Q305 | 8-729-201-27 | TRANSISTOR | 2SC2715 |
| Q306 | 8-729-201-27 | TRANSISTOR | 2SC2715 |
| Q307 | 8-729-201-27 | TRANSISTOR | 2SC2715 |
| Q309 | 8-729-201-27 | TRANSISTOR | 2SC2715 |
| Q310 | 8-729-201-27 | TRANSISTOR | 2SC2715 |
| Q311 | 8-729-201-27 | TRANSISTOR | 2SC2715 |
| Q312 | 8-729-901-06 | TRANSISTOR | DTA144EK |
| Q313 | 8-729-216-22 | TRANSISTOR | 2SA1162 |
| Q314 | 8-729-201-27 | TRANSISTOR | 2SC2715 |
| Q315 | 8-729-201-27 | TRANSISTOR | 2SC2715 |
| Q316 | 8-729-901-01 | TRANSISTOR | DTC144EK |
| Q317 | 8-729-201-27 | TRANSISTOR | 2SC2715 |
| Q318 | 8-729-901-06 | TRANSISTOR | DTA144EK |
| Q319 | 8-729-201-27 | TRANSISTOR | 2SC2715 |
| Q320 | 8-729-901-01 | TRANSISTOR | DTC144EK |
| Q321 | 8-729-901-01 | TRANSISTOR | DTC144EK |
| Q322 | 8-729-216-22 | TRANSISTOR | 2SA1162 |
| Q323 | 8-729-901-01 | TRANSISTOR | DTC144EK |
| Q324 | 8-729-901-01 | TRANSISTOR | DTC144EK |
| Q325 | 8-729-901-06 | TRANSISTOR | DTA144EK |
| Q326 | 8-729-901-06 | TRANSISTOR | DTA144EK |
| Q327 | 8-729-201-27 | TRANSISTOR | 2SC2715 |
| Q328 | 8-729-201-27 | TRANSISTOR | 2SC2715 |
| Q330 | 8-729-901-06 | TRANSISTOR | DTA144EK |
| Q389 | 8-729-201-27 | TRANSISTOR | 2SC2715 |
| Q401 | 8-729-201-27 | TRANSISTOR | 2SC2715 |
| Q402 | 8-729-201-27 | TRANSISTOR | 2SC2715 |
| Q403 | 8-729-901-01 | TRANSISTOR | DTC144EK |
| Q404 | 8-729-901-01 | TRANSISTOR | DTC144EK |
| Q405 | 8-729-901-06 | TRANSISTOR | DTA144EK |
| Q406 | 8-729-201-27 | TRANSISTOR | 2SC2715 |
| Q407 | 8-729-216-22 | TRANSISTOR | 2SA1162 |
| Q408 | 8-729-216-22 | TRANSISTOR | 2SA1162 |
| Q409 | 8-729-201-27 | TRANSISTOR | 2SC2715 |
| Q410 | 8-729-216-22 | TRANSISTOR | 2SA1162 |
| Q411 | 8-729-901-01 | TRANSISTOR | DTC144EK |
| Q412 | 8-729-901-01 | TRANSISTOR | DTC144EK |
| Q413 | 8-729-901-01 | TRANSISTOR | DTC144EK |
| Q414 | 8-729-201-27 | TRANSISTOR | 2SC2715 |
| Q415 | 8-729-216-22 | TRANSISTOR | 2SA1162 |
| Q416 | 8-729-216-22 | TRANSISTOR | 2SA1162 |
| Q417 | 8-729-901-01 | TRANSISTOR | DTC144EK |
| Q418 | 8-729-201-27 | TRANSISTOR | 2SC2715 |
| Q419 | 8-729-201-27 | TRANSISTOR | 2SC2715 |
| Q420 | 8-729-202-38 | TRANSISTOR | 2SC3326N |
| Q421 | 8-729-202-38 | TRANSISTOR | 2SC3326N |
| Q422 | 8-729-201-27 | TRANSISTOR | 2SC2715 |
| Q423 | 8-729-201-27 | TRANSISTOR | 2SC2715 |
| Q424 | 8-729-901-01 | TRANSISTOR | DTC144EK |
| Q425 | 8-729-201-27 | TRANSISTOR | 2SC2715 |
| Q426 | 8-729-201-27 | TRANSISTOR | 2SC2715 |
| Q427 | 8-729-216-22 | TRANSISTOR | 2SA1162 |
| Q428 | 8-729-216-22 | TRANSISTOR | 2SA1162 |
| Q429 | 8-729-901-01 | TRANSISTOR | DTC144EK |
| Q430 | 8-729-901-01 | TRANSISTOR | DTC144EK |
| Q431 | 8-729-216-22 | TRANSISTOR | 2SA1162 |
| Q501 | 8-729-901-06 | TRANSISTOR | DTA144EK |
| Q502 | 8-729-901-01 | TRANSISTOR | DTC144EK |
| Q503 | 8-729-901-00 | TRANSISTOR | DTC124EK |
| Q504 | 8-729-201-27 | TRANSISTOR | 2SC2715 |
| Q601 | 8-729-901-01 | TRANSISTOR | DTC144EK |
| Q603 | 8-729-901-01 | TRANSISTOR | DTC144EK |
| Q604 | 8-729-201-27 | TRANSISTOR | 2SC2715 |
| Q605 | 8-729-201-27 | TRANSISTOR | 2SC2715 |
| Q606 | 8-729-901-01 | TRANSISTOR | DTC144EK |
| Q607 | 8-729-201-27 | TRANSISTOR | 2SC2715 |
| Q608 | 8-729-216-22 | TRANSISTOR | 2SA1162 |
| Q609 | 8-729-901-00 | TRANSISTOR | DTC124EK |
| Q610 | 8-729-904-04 | TRANSISTOR | FMS2 |
| Q611 | 8-729-201-27 | TRANSISTOR | 2SC2715 |
| Q612 | 8-729-201-27 | TRANSISTOR | 2SC2715 |
| Q613 | 8-729-901-01 | TRANSISTOR | DTC144EK |
| Q701 | 8-729-201-27 | TRANSISTOR | 2SC2715 |
| Q702 | 8-729-202-38 | TRANSISTOR | 2SC3326N |
| Q703 | 8-729-202-38 | TRANSISTOR | 2SC3326N |
| Q704 | 8-729-216-22 | TRANSISTOR | 2SA1162 |
| Q706 | 8-729-201-27 | TRANSISTOR | 2SC2715 |
| Q707 | 8-729-201-27 | TRANSISTOR | 2SC2715 |
| Q710 | 8-729-901-01 | TRANSISTOR | DTC144EK |
| Q711 | 8-729-901-01 | TRANSISTOR | DTC144EK |
| Q712 | 8-729-901-01 | TRANSISTOR | DTC144EK |
| Q720 | 8-729-200-86 | TRANSISTOR | 2SC27140 |
| Q721 | 8-729-200-86 | TRANSISTOR | 2SC27140 |
| Q722 | 8-729-200-86 | TRANSISTOR | 2SC27140 |
| Q723 | 8-729-201-27 | TRANSISTOR | 2SC2715 |
| Q724 | 8-729-901-01 | TRANSISTOR | DTC144EK |
| Q801 | 8-729-920-08 | TRANSISTOR | DTC124TK-T146 |
| Q802 | 8-729-201-27 | TRANSISTOR | 2SC2715 |
| Q803 | 8-729-201-27 | TRANSISTOR | 2SC2715 |
| Q804 | 8-729-201-27 | TRANSISTOR | 2SC2715 |
| Q805 | 8-729-216-22 | TRANSISTOR | 2SA1162 |
| Q811 | 8-729-901-01 | TRANSISTOR | DTC144EK |
| Q901 | 8-729-901-01 | TRANSISTOR | DTC144EK |
| Q902 | 8-729-901-01 | TRANSISTOR | DTC144EK |
| Q903 | 8-729-104-25 | TRANSISTOR | 2SB804-AV |
| Q904 | 8-729-201-27 | TRANSISTOR | 2SC2715 |

* A-7062-164-A HK-5 BOARD, COMPLETE
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(Ref.No 4,000 Series)

< DIODE >

| | | | |
|---|---|---|---|
| D101 | 8-719-400-18 | DIODE | MA152WK |
| D102 | 8-719-400-18 | DIODE | MA152WK |
| D105 | 8-719-800-76 | DIODE | 1SS226 |
| D106 | 8-719-400-18 | DIODE | MA152WK |
| D107 | 8-719-400-18 | DIODE | MA152WK |
| D108 | 8-719-400-18 | DIODE | MA152WK |
| D109 | 8-719-400-18 | DIODE | MA152WK |
| D301 | 8-719-400-18 | DIODE | MA152WK |
| D302 | 8-719-400-18 | DIODE | MA152WK |
| D401 | 8-719-400-18 | DIODE | MA152WK |
| D402 | 8-719-400-18 | DIODE | MA152WK |
| D403 | 8-719-400-18 | DIODE | MA152WK |
| D404 | 8-719-400-18 | DIODE | MA152WK |
| D405 | 8-719-400-18 | DIODE | MA152WK |
| D501 | 8-719-400-18 | DIODE | MA152WK |
| D601 | 8-719-800-76 | DIODE | 1SS226 |
| D602 | 8-719-400-18 | DIODE | MA152WK |
| D603 | 8-719-400-18 | DIODE | MA152WK |
| D604 | 8-719-400-18 | DIODE | MA152WK |
| D605 | 8-719-400-18 | DIODE | MA152WK |
| D801 | 8-719-400-18 | DIODE | MA152WK |
| D802 | 8-719-400-18 | DIODE | MA152WK |
| D804 | 8-719-400-18 | DIODE | MA152WK |
| D821 | 8-719-400-18 | DIODE | MA152WK |
| D822 | 8-719-800-76 | DIODE | 1SS226 |
| D823 | 8-719-800-76 | DIODE | 1SS226 |
| D901 | 8-719-400-18 | DIODE | MA152WK |

< IC >

| | | | |
|---|---|---|---|
| IC101 | 8-759-233-94 | IC | TA8607F |
| IC102 | 8-759-925-60 | IC | BA401 |
| IC301 | 8-752-002-XX | IC | CX20030 |
| IC401 | 8-752-031-01 | IC | CXA1047M |
| IC501 | 8-752-003-12 | IC | CX20031 |
| IC601 | 8-752-202-10 | IC | CX22021 |
| IC602 | 8-752-003-22 | IC | CX20032 |
| IC603 | 8-752-305-47 | IC | CX23054 |
| IC604 | 8-759-009-51 | IC | MC14538BF |
| IC702 | 8-759-012-00 | IC | MC10H116M |
| IC703 | 8-752-006-12 | IC | CX20061 |
| IC801 | 8-759-202-67 | IC | CX20117 |
| IC901 | 8-759-925-74 | IC | SN74HC04ANS |
| IC902 | 8-759-925-74 | IC | SN74HC04ANS |

< TRANSISTOR >

| | | | |
|---|---|---|---|
| Q101 | 8-729-200-86 | TRANSISTOR | 2SC27140 |
| Q102 | 8-729-901-04 | TRANSISTOR | DTA114EK |
| Q103 | 8-729-200-86 | TRANSISTOR | 2SC27140 |
| Q104 | 8-729-901-01 | TRANSISTOR | DTC144EK |
| Q105 | 8-729-904-07 | TRANSISTOR | FMG2 |
| Q107 | 8-729-201-27 | TRANSISTOR | 2SC2715 |
| Q110 | 8-729-901-01 | TRANSISTOR | DTC144EK |
| Q111 | 8-729-200-86 | TRANSISTOR | 2SC27140 |
| Q112 | 8-729-901-01 | TRANSISTOR | DTC144EK |
| Q113 | 8-729-200-86 | TRANSISTOR | 2SC27140 |
| Q116 | 8-729-201-27 | TRANSISTOR | 2SC2715 |
| Q117 | 8-729-200-86 | TRANSISTOR | 2SC27140 |
| Q118 | 8-729-200-86 | TRANSISTOR | 2SC27140 |
| Q119 | 8-729-200-86 | TRANSISTOR | 2SC27140 |
| Q120 | 8-729-200-86 | TRANSISTOR | 2SC27140 |
| Q121 | 8-729-201-27 | TRANSISTOR | 2SC2715 |
| Q122 | 8-729-901-01 | TRANSISTOR | DTC144EK |
| Q123 | 8-729-901-01 | TRANSISTOR | DTC144EK |
| Q124 | 8-729-901-06 | TRANSISTOR | DTA144EK |
| Q125 | 8-729-901-01 | TRANSISTOR | DTC144EK |
| Q126 | 8-729-201-27 | TRANSISTOR | 2SC2715 |
| Q127 | 8-729-201-27 | TRANSISTOR | 2SC2715 |
| Q128 | 8-729-202-38 | TRANSISTOR | 2SC3326N |
| Q129 | 8-729-201-27 | TRANSISTOR | 2SC2715 |
| Q130 | 8-729-201-27 | TRANSISTOR | 2SC2715 |
| Q131 | 8-729-216-22 | TRANSISTOR | 2SA1162 |
| Q132 | 8-729-201-27 | TRANSISTOR | 2SC2715 |
| Q181 | 8-729-907-46 | TRANSISTOR | IMZ1 |
| Q182 | 8-729-903-10 | TRANSISTOR | FMW1 |
| Q183 | 8-729-200-86 | TRANSISTOR | 2SC27140 |
| Q184 | 8-729-216-22 | TRANSISTOR | 2SA1162 |
| Q209 | 8-729-200-86 | TRANSISTOR | 2SC27140 |
| Q210 | 8-729-200-86 | TRANSISTOR | 2SC27140 |
| Q211 | 8-729-200-86 | TRANSISTOR | 2SC27140 |
| Q212 | 8-729-901-01 | TRANSISTOR | DTC144EK |
| Q213 | 8-729-901-06 | TRANSISTOR | DTA144EK |
| Q214 | 8-729-200-86 | TRANSISTOR | 2SC27140 |
| Q215 | 8-729-902-96 | TRANSISTOR | FMS1 |
| Q217 | 8-729-200-86 | TRANSISTOR | 2SC27140 |
| Q218 | 8-729-200-86 | TRANSISTOR | 2SC27140 |
| Q301 | 8-729-201-27 | TRANSISTOR | 2SC2715 |
| Q302 | 8-729-201-27 | TRANSISTOR | 2SC2715 |
| Q305 | 8-729-201-27 | TRANSISTOR | 2SC2715 |
| Q306 | 8-729-201-27 | TRANSISTOR | 2SC2715 |
| Q307 | 8-729-201-27 | TRANSISTOR | 2SC2715 |
| Q309 | 8-729-201-27 | TRANSISTOR | 2SC2715 |
| Q310 | 8-729-201-27 | TRANSISTOR | 2SC2715 |
| Q311 | 8-729-201-27 | TRANSISTOR | 2SC2715 |
| Q312 | 8-729-901-06 | TRANSISTOR | DTA144EK |
| Q313 | 8-729-216-22 | TRANSISTOR | 2SA1162 |
| Q314 | 8-729-201-27 | TRANSISTOR | 2SC2715 |
| Q315 | 8-729-201-27 | TRANSISTOR | 2SC2715 |
| Q316 | 8-729-901-01 | TRANSISTOR | DTC144EK |
| Q317 | 8-729-201-27 | TRANSISTOR | 2SC2715 |
| Q318 | 8-729-901-06 | TRANSISTOR | DTA144EK |
| Q319 | 8-729-201-27 | TRANSISTOR | 2SC2715 |
| Q320 | 8-729-901-01 | TRANSISTOR | DTC144EK |
| Q321 | 8-729-901-01 | TRANSISTOR | DTC144EK |
| Q322 | 8-729-216-22 | TRANSISTOR | 2SA1162 |
| Q323 | 8-729-901-01 | TRANSISTOR | DTC144EK |
| Q324 | 8-729-901-01 | TRANSISTOR | DTC144EK |
| Q325 | 8-729-901-06 | TRANSISTOR | DTA144EK |
| Q326 | 8-729-901-06 | TRANSISTOR | DTA144EK |
| Q327 | 8-729-201-27 | TRANSISTOR | 2SC2715 |
| Q328 | 8-729-201-27 | TRANSISTOR | 2SC2715 |
| Q330 | 8-729-901-06 | TRANSISTOR | DTA144EK |
| Q389 | 8-729-201-27 | TRANSISTOR | 2SC2715 |
| Q401 | 8-729-201-27 | TRANSISTOR | 2SC2715 |
| Q402 | 8-729-201-27 | TRANSISTOR | 2SC2715 |
| Q403 | 8-729-901-01 | TRANSISTOR | DTC144EK |
| Q404 | 8-729-901-01 | TRANSISTOR | DTC144EK |
| Q405 | 8-729-901-06 | TRANSISTOR | DTA144EK |
| Q406 | 8-729-201-27 | TRANSISTOR | 2SC2715 |
| Q407 | 8-729-216-22 | TRANSISTOR | 2SA1162 |
| Q408 | 8-729-216-22 | TRANSISTOR | 2SA1162 |
| Q409 | 8-729-201-27 | TRANSISTOR | 2SC2715 |
| Q410 | 8-729-216-22 | TRANSISTOR | 2SA1162 |
| Q411 | 8-729-901-01 | TRANSISTOR | DTC144EK |
| Q412 | 8-729-901-01 | TRANSISTOR | DTC144EK |
| Q413 | 8-729-901-01 | TRANSISTOR | DTC144EK |
| Q414 | 8-729-201-27 | TRANSISTOR | 2SC2715 |
| Q415 | 8-729-216-22 | TRANSISTOR | 2SA1162 |
| Q416 | 8-729-216-22 | TRANSISTOR | 2SA1162 |
| Q417 | 8-729-901-01 | TRANSISTOR | DTC144EK |
| Q418 | 8-729-201-27. | TRANSISTOR | 2SC2715 |
| Q419 | 8-729-201-27 | TRANSISTOR | 2SC2715 |
| Q420 | 8-729-202-38 | TRANSISTOR | 2SC3326N |
| Q421 | 8-729-202-38 | TRANSISTOR | 2SC3326N |
| Q422 | 8-729-201-27 | TRANSISTOR | 2SC2715 |
| Q423 | 8-729-201-27 | TRANSISTOR | 2SC2715 |
| Q424 | 8-729-901-01 | TRANSISTOR | DTC144EK |
| Q425 | 8-729-201-27 | TRANSISTOR | 2SC2715 |
| Q426 | 8-729-201-27 | TRANSISTOR | 2SC2715 |
| Q427 | 8-729-216-22 | TRANSISTOR | 2SA1162 |
| Q428 | 8-729-216-22 | TRANSISTOR | 2SA1162 |
| Q429 | 8-729-901-01 | TRANSISTOR | DTC144EK |
| Q430 | 8-729-901-01 | TRANSISTOR | DTC144EK |
| Q431 | 8-729-216-22 | TRANSISTOR | 2SA1162 |
| Q501 | 8-729-901-06 | TRANSISTOR | DTA144EK |
| Q502 | 8-729-901-01 | TRANSISTOR | DTC144EK |
| Q503 | 8-729-901-00 | TRANSISTOR | DTC124EK |
| Q504 | 8-729-201-27 | TRANSISTOR | 2SC2715 |
| Q601 | 8-729-901-01 | TRANSISTOR | DTC144EK |
| Q603 | 8-729-901-01 | TRANSISTOR | DTC144EK |
| Q604 | 8-729-201-27 | TRANSISTOR | 2SC2715 |
| Q605 | 8-729-201-27 | TRANSISTOR | 2SC2715 |
| Q606 | 8-729-901-01 | TRANSISTOR | DTC144EK |
| Q607 | 8-729-201-27 | TRANSISTOR | 2SC2715 |
| Q608 | 8-729-216-22 | TRANSISTOR | 2SA1162 |
| Q609 | 8-729-901-00 | TRANSISTOR | DTC124EK |
| Q610 | 8-729-904-04 | TRANSISTOR | FMS2 |
| Q611 | 8-729-201-27 | TRANSISTOR | 2SC2715 |
| Q612 | 8-729-201-27 | TRANSISTOR | 2SC2715 |
| Q613 | 8-729-901-01 | TRANSISTOR | DTC144EK |
| Q701 | 8-729-201-27 | TRANSISTOR | 2SC2715 |
| Q702 | 8-729-202-38 | TRANSISTOR | 2SC3326N |
| Q703 | 8-729-202-38 | TRANSISTOR | 2SC3326N |
| Q704 | 8-729-216-22 | TRANSISTOR | 2SA1162 |
| Q706 | 8-729-201-27 | TRANSISTOR | 2SC2715 |
| Q707 | 8-729-201-27 | TRANSISTOR | 2SC2715 |
| Q710 | 8-729-901-01 | TRANSISTOR | DTC144EK |
| Q711 | 8-729-901-01 | TRANSISTOR | DTC144EK |
| Q712 | 8-729-901-01 | TRANSISTOR | DTC144EK |
| Q720 | 8-729-200-86 | TRANSISTOR | 2SC27140 |
| Q721 | 8-729-200-86 | TRANSISTOR | 2SC27140 |
| Q722 | 8-729-200-86 | TRANSISTOR | 2SC27140 |
| Q723 | 8-729-201-27 | TRANSISTOR | 2SC2715 |
| Q724 | 8-729-901-01 | TRANSISTOR | DTC144EK |
| Q801 | 8-729-920-08 | TRANSISTOR | DTC124TK-T146 |
| Q802 | 8-729-201-27 | TRANSISTOR | 2SC27.15 |
| Q803 | 8-729-201-27 | TRANSISTOR | 2SC2715 |
| Q804 | 8-729-201-27 | TRANSISTOR | 2SC2715 |
| Q805 | 8-729-216-22 | TRANSISTOR | 2SA1162 |
| Q811 | 8-729-901-01 | TRANSISTOR | DTC144EK |
| Q901 | 8-729-901-01 | TRANSISTOR | DTC144EK |
| Q902 | 8-729-901-01 | TRANSISTOR | DTC144EK |
| Q903 | 8-729-104-25 | TRANSISTOR | 2SB804-AV |
| Q904 | 8-729-201-27 | TRANSISTOR | 2SC2715 |

## HK-5 (CHROMA SIGNAL PROCESS, Y SIGNAL PROCESS, Y/C/AFM MIX)

— Ref. No. HK-5 BOARD: 4000 series —

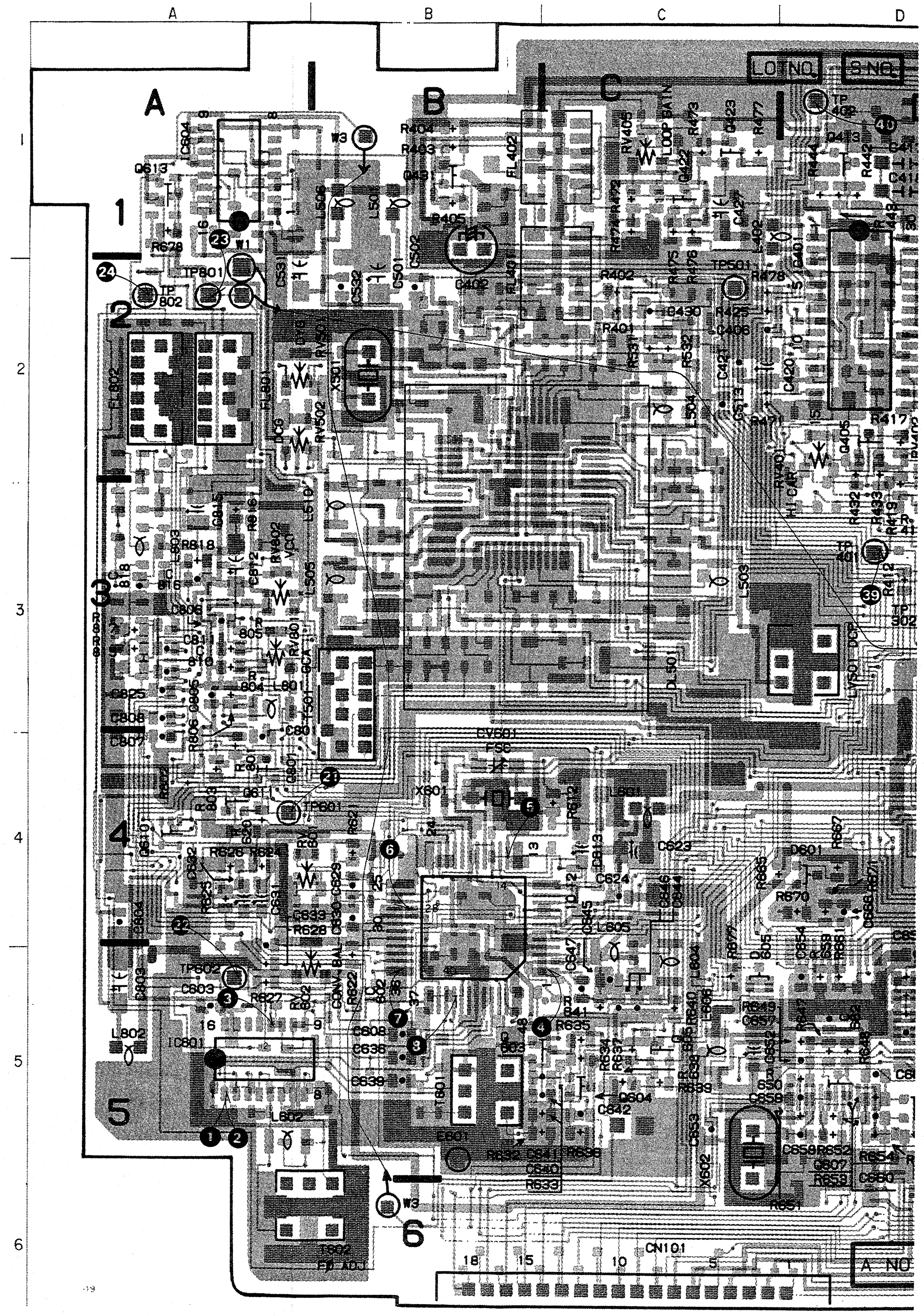
HK-5 BOARD (COMPONENT SIDE)

| | |
|---|---|
| D301 | E-1 |
| D404 | E-2 |
| D601 | D-4 |
| D605 | C-5 |
| D802 | G-6 |
| D804 | G-6 |
| IC101 | G-4 |
| IC102 | G-3 |
| IC301 | F-2 |
| IC401 | D-1 |
| IC601 | A-5 |
| IC602 | B-5 |
| IC702 | G-2 |
| IC703 | H-3 |
| IC901 | E-5 |
| IC902 | E-5 |
| Q101 | H-5 |
| Q105 | F-4 |
| Q107 | H-4 |
| Q112 | G-4 |
| Q119 | G-3 |
| Q125 | F-5 |
| Q126 | G-5 |
| Q131 | H-4 |
| Q181 | H-3 |
| Q182 | H-3 |
| Q215 | E-5 |
| Q306 | F-2 |
| Q307 | F-2 |
| Q315 | F-2 |
| Q316 | G-2 |
| Q317 | F-3 |
| Q322 | E-2 |
| Q323 | D-2 |
| Q324 | E-3 |
| Q325 | F-2 |
| Q403 | D-3 |
| Q404 | D-3 |
| Q405 | D-2 |
| Q413 | D-1 |
| Q414 | E-2 |
| Q417 | D-2 |
| Q422 | C-1 |
| Q423 | C-1 |
| Q426 | D-1 |
| Q431 | B-1 |
| Q603 | B-5 |
| Q604 | C-5 |
| Q605 | C-5 |
| Q607 | D-5 |
| Q608 | D-5 |
| Q610 | A-4 |
| Q611 | A-4 |
| Q704 | D-4 |
| Q721 | G-3 |
| Q801 | A-4 |

HK-5 BOARD (CONDUCTOR SIDE)

| | |
|---|---|
| D101 | F-4 |
| D102 | F-4 |
| D105 | G-3 |
| D106 | G-4 |
| D107 | F-4 |
| D108 | G-3 |
| D109 | H-4 |
| D302 | E-1 |
| D401 | D-2 |
| D402 | D-1 |
| D403 | D-1 |
| D405 | D-2 |
| D501 | C-2 |
| D602 | D-5 |
| D603 | A-1 |
| D604 | A-1 |
| D801 | C-5 |
| D821 | A-3 |
| D822 | A-3 |
| D901 | G-6 |
| IC501 | C-3 |
| IC603 | C-5 |
| IC801 | A-4 |
| Q102 | F-5 |
| Q103 | G-5 |
| Q104 | G-4 |
| Q110 | G-4 |
| Q111 | G-4 |
| Q113 | H-4 |
| Q116 | F-4 |
| Q117 | G-3 |
| Q118 | F-3 |
| Q120 | G-3 |
| Q121 | H-3 |
| Q122 | G-4 |
| Q123 | G-4 |
| Q127 | G-5 |
| Q128 | H-5 |
| Q129 | H-4 |
| Q130 | H-4 |
| Q132 | H-5 |
| Q183 | H-3 |
| Q184 | H-3 |
| Q209 | E-4 |
| Q210 | F-5 |
| Q211 | F-5 |
| Q212 | F-4 |
| Q213 | E-5 |
| Q214 | E-5 |
| Q217 | E-5 |
| Q218 | F-5 |
| Q301 | E-1 |
| Q302 | G-1 |
| Q305 | G-1 |
| Q309 | F-1 |
| Q310 | G-2 |
| Q311 | F-3 |
| Q312 | F-3 |
| Q313 | F-3 |
| Q314 | F-2 |
| Q318 | F-2 |
| Q319 | E-1 |
| Q320 | E-1 |
| Q321 | E-2 |
| Q326 | G-3 |
| Q327 | F-2 |
| Q328 | G-2 |
| Q330 | E-3 |
| Q389 | F-2 |
| Q401 | B-1 |
| Q402 | C-1 |
| Q406 | D-3 |
| Q407 | D-2 |
| Q408 | D-2 |
| Q409 | D-3 |
| Q410 | D-3 |
| Q411 | E-3 |
| Q412 | E-3 |
| Q415 | D-2 |
| Q416 | D-2 |
| Q418 | D-1 |
| Q419 | D-2 |
| Q420 | D-1 |
| Q421 | D-1 |
| Q424 | D-2 |
| Q425 | E-3 |
| Q427 | C-1 |
| Q428 | C-1 |
| Q429 | C-1 |
| Q430 | C-1 |
| Q501 | C-2 |
| Q502 | C-1 |
| Q503 | C-2 |
| Q504 | B-3 |
| Q601 | B-5 |
| Q606 | C-5 |
| Q609 | A-4 |
| Q612 | A-1 |
| Q613 | A-1 |
| Q701 | D-3 |
| Q702 | D-3 |
| Q703 | D-4 |
| Q706 | E-3 |
| Q707 | E-4 |
| Q710 | D-4 |
| Q711 | D-4 |
| Q712 | D-5 |
| Q720 | G-2 |
| Q722 | G-5 |
| Q723 | G-5 |
| Q724 | G-5 |
| Q802 | A-4 |
| Q803 | A-3 |
| Q804 | A-3 |
| Q805 | A-2 |
| Q811 | C-5 |
| Q901 | F-6 |
| Q902 | F-6 |
| Q903 | F-5 |
| Q904 | F-5 |

HK-5 BOARD (COMPONENT SIDE)



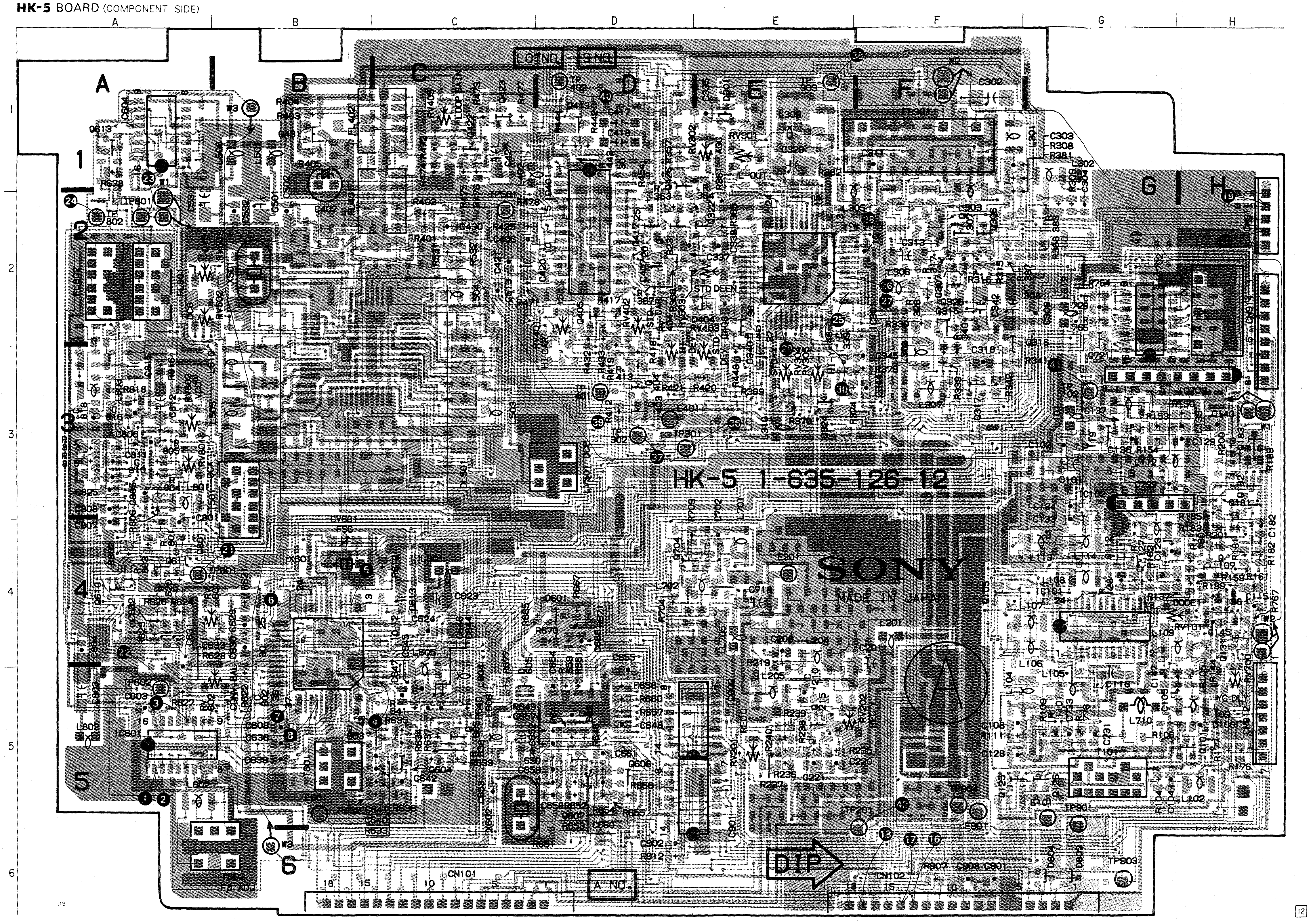
# HK-5 (CHROMA SIGNAL PROCESS, Y SIGNAL PROCESS, Y/C/AFM MIX) PRINTED WIRING BOARD

— Ref. No. HK-5 BOARD: 4000 series —

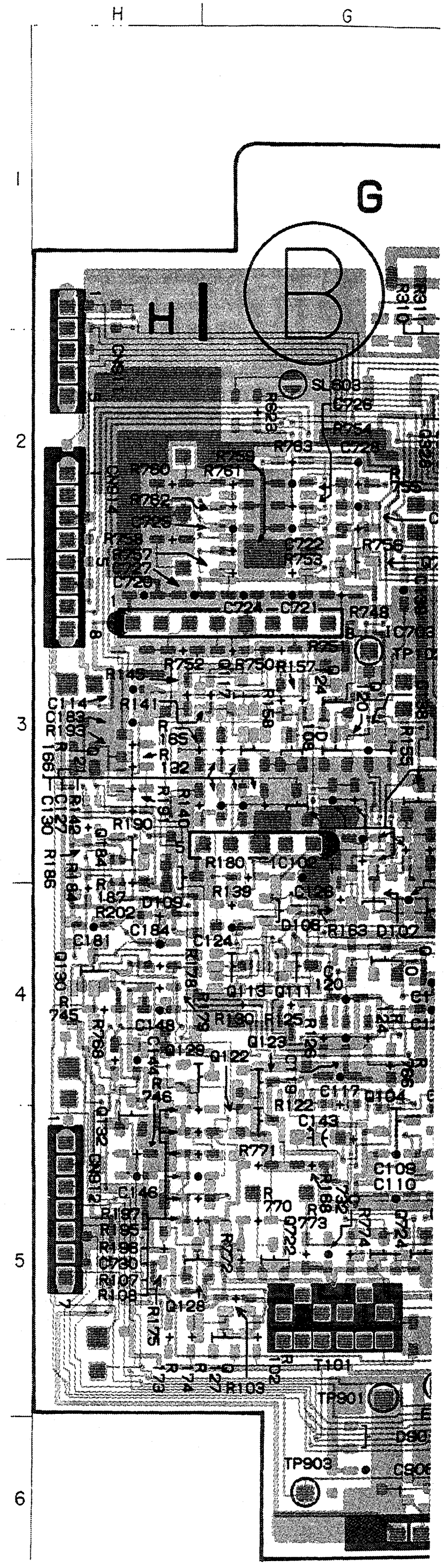
K-5 BOARD
CONDUCTOR
IDE)

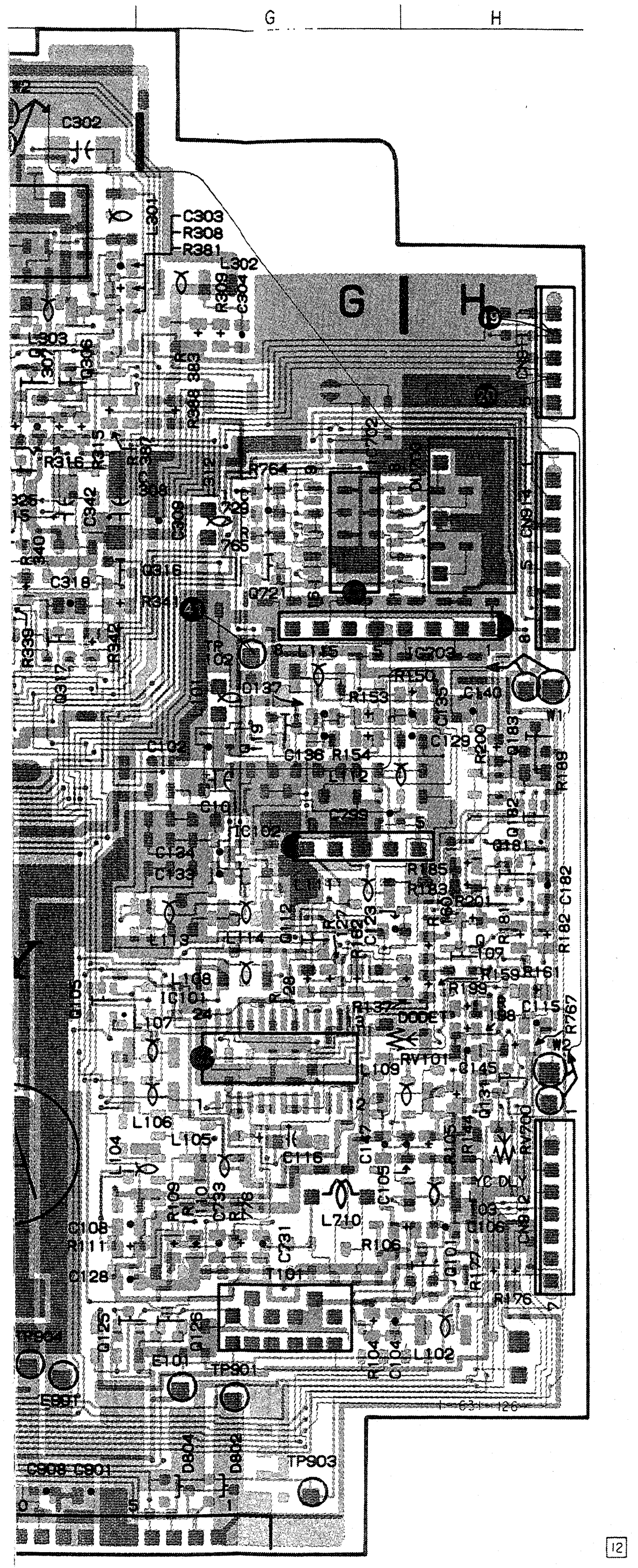
| | | | |
|---|---|---|---|
| 101 | F-4 | Q501 | C-2 |
| 102 | F-4 | Q502 | C-1 |
| 105 | G-3 | Q503 | C-2 |
| 106 | G-4 | Q504 | B-3 |
| 107 | F-4 | Q601 | B-5 |
| 108 | G-3 | Q606 | C-5 |
| 109 | H-4 | Q609 | A-4 |
| 302 | E-1 | Q612 | A-1 |
| 401 | D-2 | Q613 | A-1 |
| 402 | D-1 | Q701 | D-3 |
| 403 | D-1 | Q702 | D-3 |
| 405 | D-2 | Q703 | D-4 |
| 501 | C-2 | Q706 | E-3 |
| 602 | D-5 | Q707 | E-4 |
| 603 | A-1 | Q710 | D-4 |
| 604 | A-1 | Q711 | D-4 |
| 801 | C-5 | Q712 | D-5 |
| 821 | A-3 | Q720 | G-2 |
| 822 | A-3 | Q722 | G-5 |
| 901 | G-6 | Q723 | G-5 |
| | | Q724 | G-5 |
| C501 | C-3 | Q802 | A-4 |
| C603 | C-5 | Q803 | A-3 |
| C801 | A-4 | Q804 | A-3 |
| | | Q805 | A-2 |
| 102 | F-5 | Q811 | C-5 |
| 103 | G-5 | Q901 | F-6 |
| 104 | G-4 | Q902 | F-6 |
| 110 | G-4 | Q903 | F-5 |
| 111 | G-4 | Q904 | F-5 |
| 113 | H-4 | | |
| 116 | F-4 | | |
| 117 | G-3 | | |
| 118 | F-3 | | |
| 120 | G-3 | | |
| 121 | H-3 | | |
| 122 | G-4 | | |
| 123 | G-4 | | |
| 127 | G-5 | | |
| 128 | H-5 | | |
| 129 | H-4 | | |
| 130 | H-4 | | |
| 132 | H-5 | | |
| 183 | H-3 | | |
| 184 | H-3 | | |
| 209 | E-4 | | |
| 210 | F-5 | | |
| 211 | F-5 | | |
| 212 | F-4 | | |
| 213 | E-5 | | |
| 214 | E-5 | | |
| 217 | E-5 | | |
| 218 | F-5 | | |
| 301 | E-1 | | |
| 302 | G-1 | | |
| 305 | G-1 | | |
| 309 | F-1 | | |
| 310 | G-2 | | |
| 311 | F-3 | | |
| 312 | F-3 | | |
| 313 | F-3 | | |
| 314 | F-2 | | |
| 318 | F-2 | | |
| 319 | E-1 | | |
| 320 | E-1 | | |
| 321 | E-2 | | |
| 326 | G-3 | | |
| 327 | F-2 | | |
| 328 | G-2 | | |
| 330 | E-3 | | |
| 389 | F-2 | | |
| 401 | B-1 | | |
| 402 | C-1 | | |
| 406 | D-3 | | |
| 407 | D-2 | | |
| 408 | D-2 | | |
| 409 | D-3 | | |
| 410 | D-3 | | |
| 411 | E-3 | | |
| 412 | E-3 | | |
| 415 | D-2 | | |
| 416 | D-2 | | |
| 418 | D-1 | | |
| 419 | D-2 | | |
| 420 | D-1 | | |
| 421 | D-1 | | |
| 424 | D-2 | | |
| 425 | E-3 | | |
| 427 | C-1 | | |
| 428 | C-1 | | |
| 429 | C-1 | | |
| 430 | C-1 | | |

**HK-5** BOARD (COMPONENT SIDE)

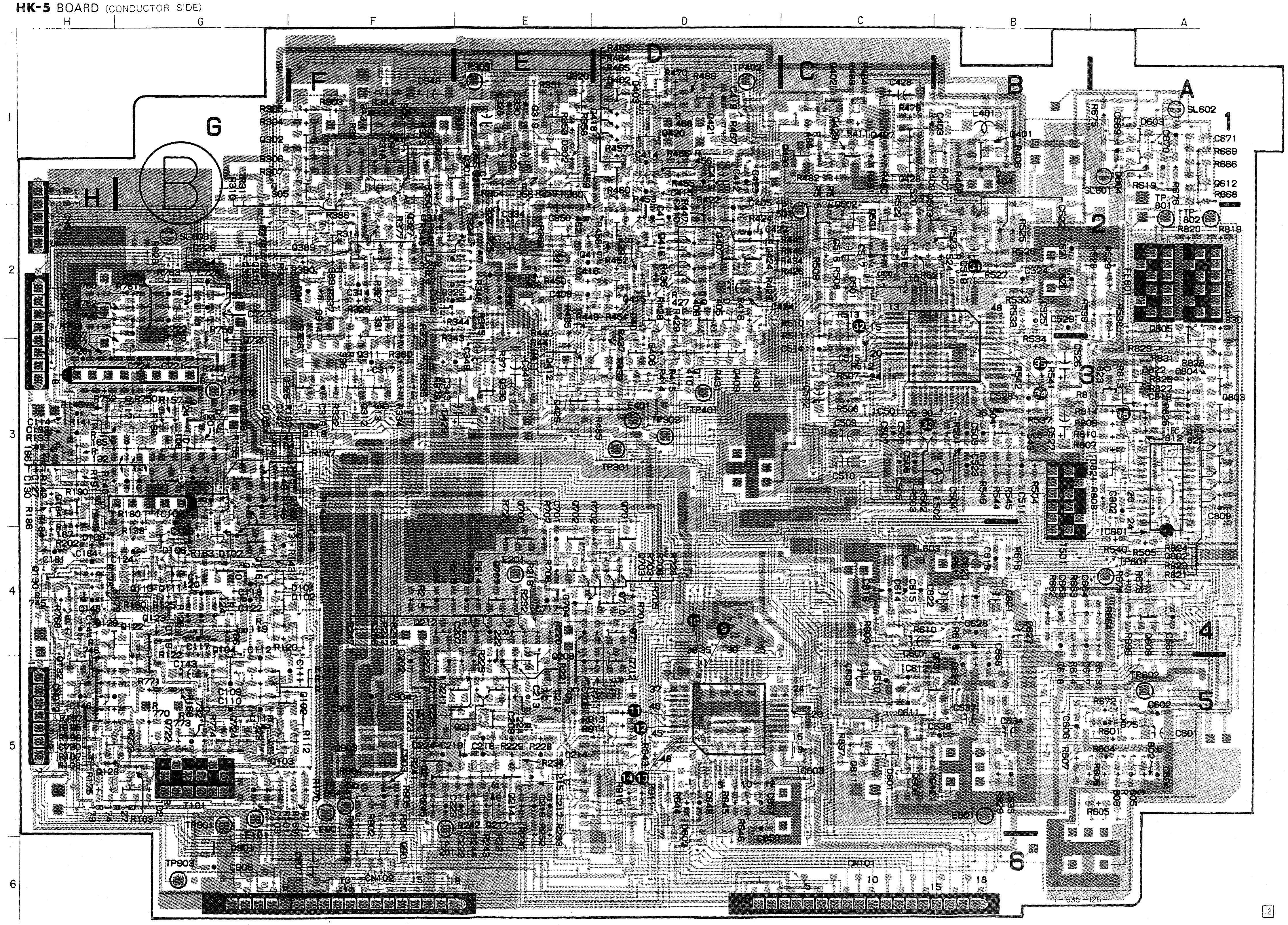

A
B
C
D
E
F
G
H
1
2
3
4
5
6
LOT NO.
S NO.
A NO.
HK-5 1-635-126-12
SONY
MADE IN JAPAN
DIP
CN101
CN102
LOOP GAIN
STD DEEN
OUT
FSC
VCO
Y/C DL
FM ADJ
12

**HK-5** BOARD (CONDUCTOR SIDE)



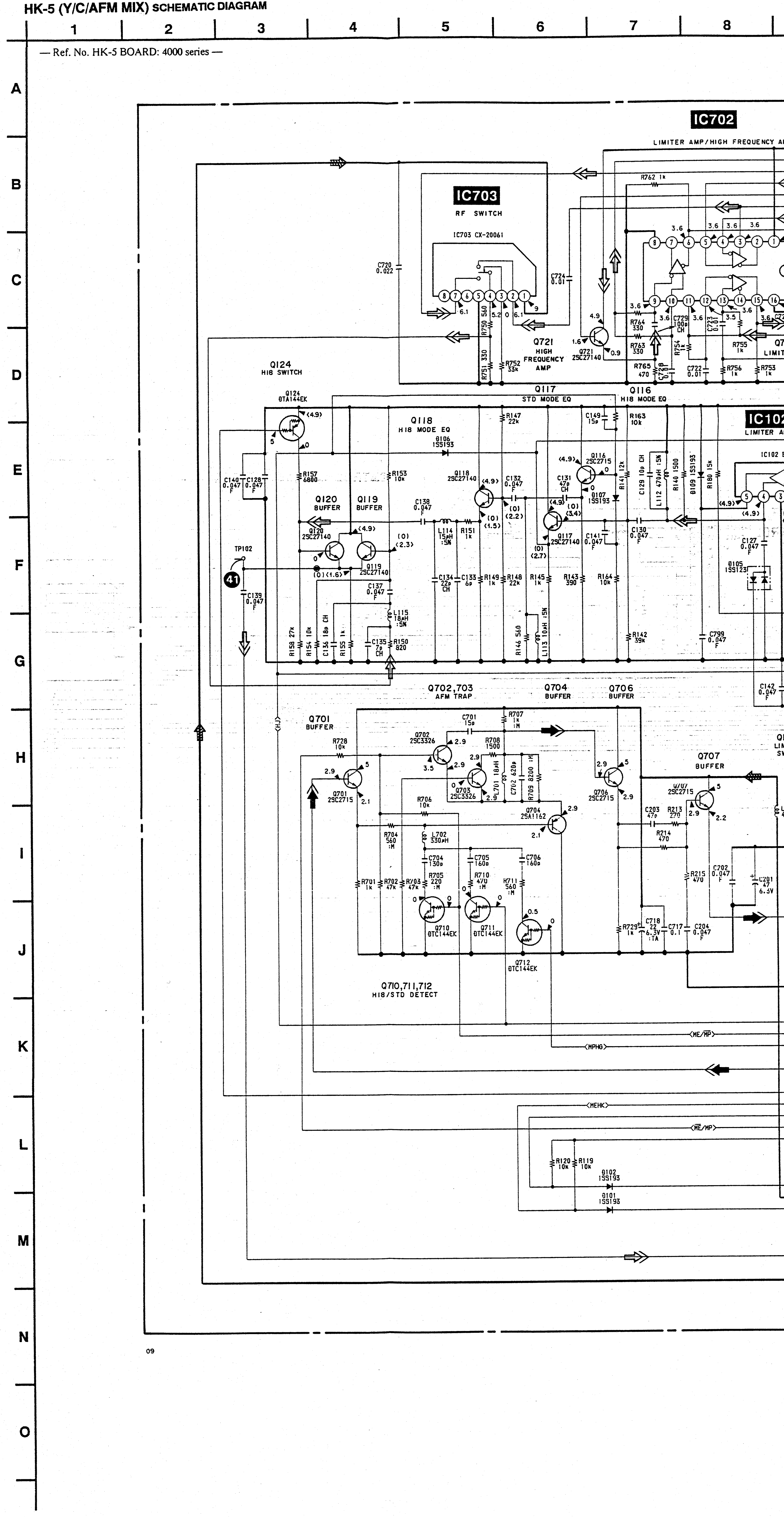

G
H
G
H
1
2
3
4
5
6
1-635-126-

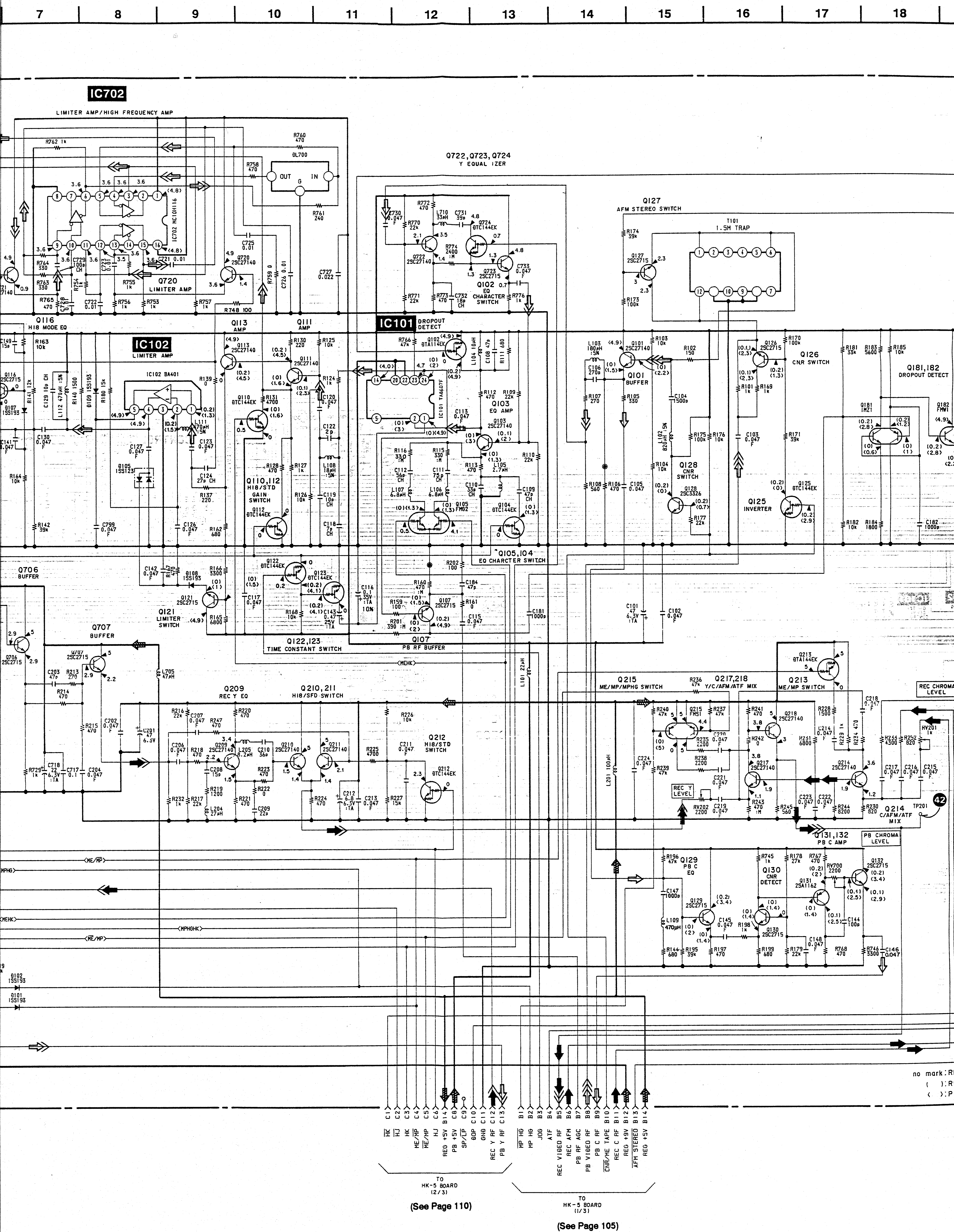
## HK-5 BOARD (CONDUCTOR SIDE)

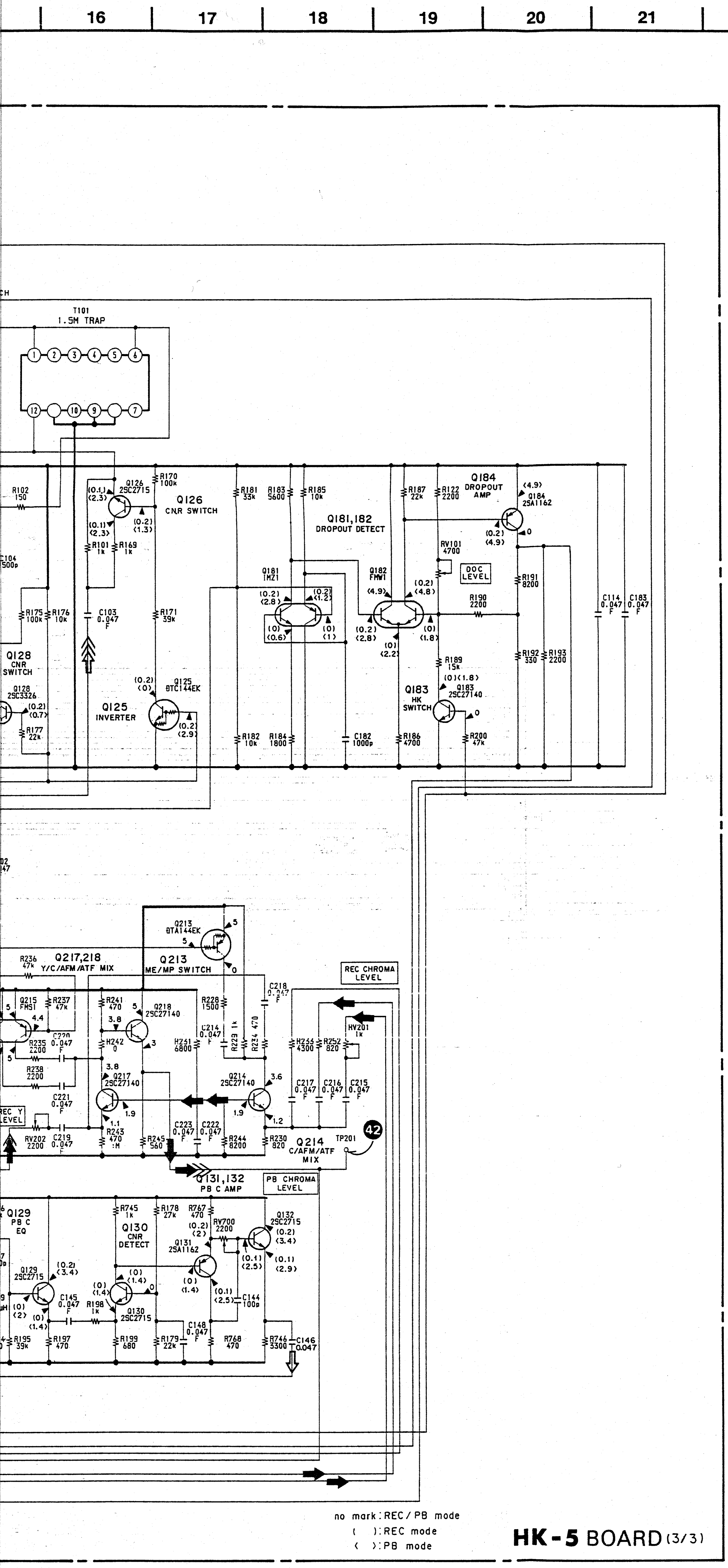

H
G
F
E
D
C
B
A
1
2
3
4
5
6
CN102
CN101
IC501
IC601
IC603
TP301
TP302
TP401
TP402
TP601
TP602
TP901
TP903
SL601
SL602
SL603
1-635-126-

## HK-5 (Y/C/AFM MIX) SCHEMATIC DIAGRAM

— Ref. No. HK-5 BOARD: 4000 series —


1
2
3
4
5
6
7
8
A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
IC702
LIMITER AMP/HIGH FREQUENCY A
IC703
RF SWITCH
IC703 CX-20061
C720 0.022
C724 0.01
Q721 HIGH FREQUENCY AMP
Q721 2SC27140
R762 1k
R764 330
R763 330
R765 470
C729 100p CH
C722 0.01
R755 1k
R756 1k
R753 1k
R750 560
R751 330
R752 33k
Q124 H18 SWITCH
Q124 DTA144EK
Q117 STD MODE EQ
Q116 H18 MODE EQ
IC102
LIMITER A
Q118 H18 MODE EQ
D106 1SS193
Q118 2SC27140
R147 22k
C149 15p
R163 10k
Q116 2SC2715
D107 1SS193
R141 12k
C129 10p CH
L112 470µH :5%
R140 1500
D109 1SS193
R180 15k
C140 0.047 F
C128 0.047 F
R157 6800
R153 10k
C132 0.047 F
C131 47p CH
Q120 BUFFER
Q119 BUFFER
C138 0.047 F
Q120 2SC27140
Q119 2SC27140
L114 15µH :5%
R151 1k
Q117 2SC27140
C141 0.047 F
C130 0.047 F
C127 0.047 F
D105 1SS123
TP102
41
C139 0.047 F
C137 0.047 F
L115 18µH :5%
C134 22p CH
C133 6p
R149 1k
R148 22k
R145 1k
R143 390
R164 10k
R158 27k
R154 10k
C136 18p CH
R155 1k
C135 7p CH
R150 820
R146 560
L113 10µH :5%
R142 39k
C799 0.047 F
C142 0.047 F
Q702,703 AFM TRAP
Q704 BUFFER
Q706 BUFFER
Q701 BUFFER
C701 15p
R707 1k :M
Q702 2SC3326
R728 10k
R708 1500
Q703 2SC3326
L701 18µH
C702 620p
R709 8200 :M
Q701 2SC2715
Q706 2SC2715
Q707 BUFFER
Q707 2SC2715
C203 47p
R213 270
R214 470
R706 10k
Q704 2SA1162
R704 560 :M
L702 330µH
C704 130p
C705 160p
C706 160p
R705 220 :M
R710 470 :M
R711 560 :M
R701 1k
R702 47k
R703 47k
Q710 DTC144EK
Q711 DTC144EK
Q712 DTC144EK
R215 470
C202 0.047 F
C201 47 6.3V
R729 1k
C718 22 6.3V :TA
C717 0.1
C204 0.047 F
Q710,711,712 H18/STD DETECT
(H)
(ME/HP)
(MPHG)
(MEHK)
(ME/MP)
R120 10k
R119 10k
D102 1SS193
D101 1SS193
09

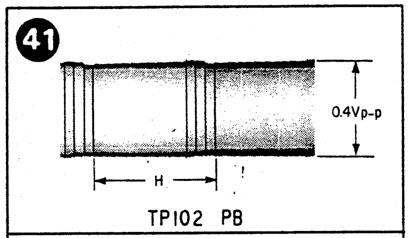

7
8
9
10
11
12
13
14
15
16
17
18
IC702
LIMITER AMP/HIGH FREQUENCY AMP
IC702 MC10H116
Q720 2SC27140
Q720 LIMITER AMP
DL700
OUT IN G
Q116 H18 MODE EQ
IC102
LIMITER AMP
IC102 BA401
Q113 AMP
Q111 AMP
Q110,112 H18/STD GAIN SWITCH
Q722,Q723,Q724 Y EQUALIZER
Q722 2SC27140
Q723 2SC2715
Q724 DTC144EK
Q102 EQ CHARACTER SWITCH
IC101
DROPOUT DETECT
IC101 TA6607F
Q103 EQ AMP
Q105,104 EQ CHARCTER SWITCH
Q127 AFM STEREO SWITCH
T101 1.5M TRAP
Q101 BUFFER
Q128 CNR SWITCH
Q126 CNR SWITCH
Q125 INVERTER
Q181,182 DROPOUT DETECT
Q706 BUFFER
Q707 BUFFER
Q121 LIMITER SWITCH
Q122,123 TIME CONSTANT SWITCH
Q107 PB RF BUFFER
Q209 REC Y EQ
Q210,211 H18/SFD SWITCH
Q212 H18/STD SWITCH
Q215 ME/MP/MPHG SWITCH
Q217,218 Y/C/AFM/ATF MIX
Q213 ME/MP SWITCH
REC Y LEVEL
REC CHROMA LEVEL
Q214 C/AFM/ATF MIX
TP201
42
Q131,132 PB C AMP
PB CHROMA LEVEL
Q129 PB C EQ
Q130 CNR DETECT
C1 HK
C2 HJ
C3 HK
C4 ME/HP
C5 ME/MP
C6 HJ
B14 REG +5V
C8 PB +5V
C9 SP/LP
C10 DOP
C11 GND
C12 REC Y RF
C13 PB Y RF
B1 HP HG
B2 MP HG
B3 JOG
B4 ATF
B5 REC VIDEO RF
B6 REC AFM
B7 PB RF AGC
B8 PB VIDEO RF
B9 PB C RF
B10 CNR/ME TAPE
B11 REC C RF
B12 REG +9V
B13 AFM STEREO
B14 REG +5V
TO HK-5 BOARD (2/3)
(See Page 110)
TO HK-5 BOARD (1/3)
(See Page 105)
no mark : R
( ) : R
< > : P


16
17
18
19
20
21
22
23
T101 1.5M TRAP
Q126 CNR SWITCH
Q126 2SC2715
R170 100k
R102 150
C104 500p
R101 1k
R169 1k
R175 100k
R176 10k
C103 0.047 F
R171 39k
Q128 CNR SWITCH
Q128 2SC3326
R177 22k
Q125 INVERTER
Q125 DTC144EK
R181 33k
R183 5600
R185 10k
Q181,182 DROPOUT DETECT
Q181 IMZ1
Q182 FMW1
R182 10k
R184 1800
C182 1000p
R187 22k
R122 2200
Q184 DROPOUT AMP
Q184 2SA1162
RV101 4700
DOC LEVEL
R190 2200
R191 8200
R189 15k
Q183 HK SWITCH
Q183 2SC2714O
R186 4700
R200 47k
R192 330
R193 2200
C114 0.047 F
C183 0.047 F
Q213 DTA144EK
Q213 ME/MP SWITCH
Q217,218 Y/C/AFM/ATF MIX
R236 47k
Q215 FMS1
R237 47k
R235 2200
C220 0.047 F
R238 2200
C221 0.047 F
REC Y LEVEL
RV202 2200
C219 0.047
R241 470
Q218 2SC2714O
R242 0
Q217 2SC2714O
R243 470
R245 560
R261 6800
C214 0.047 F
R228 1500
R223 1k
R234 470
C218 0.047 F
C223 0.047 F
C222 0.047 F
Q214 2SC2714O
R244 8200
R230 820
Q214 C/AFM/ATF MIX
REC CHROMA LEVEL
R233 4300
R252 820
RV201 1k
C217 0.047 F
C216 0.047 F
C215 0.047 F
TP201
42
Q131,132 PB C AMP
PB CHROMA LEVEL
Q129 PB C EQ
Q129 2SC2715
C145 0.047 F
R198 1k
R195 39k
R197 470
Q130 CNR DETECT
Q130 2SC2715
R199 680
R745 1k
R178 27k
R767 470
RV700 2200
Q131 2SA1162
Q132 2SC2715
C144 100p
C148 0.047 F
R179 22k
R768 470
R746 3300
C146 0.047

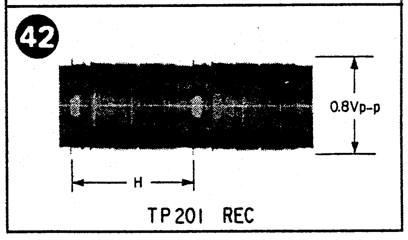
no mark : REC / PB mode
( ) : REC mode
⟨ ⟩ : PB mode

**HK-5** BOARD (3/3)

## HK-5 BOARD (3/3)

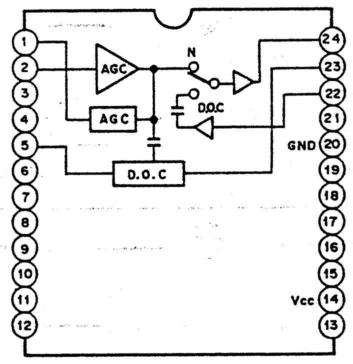


TP102 PB



TP201 REC

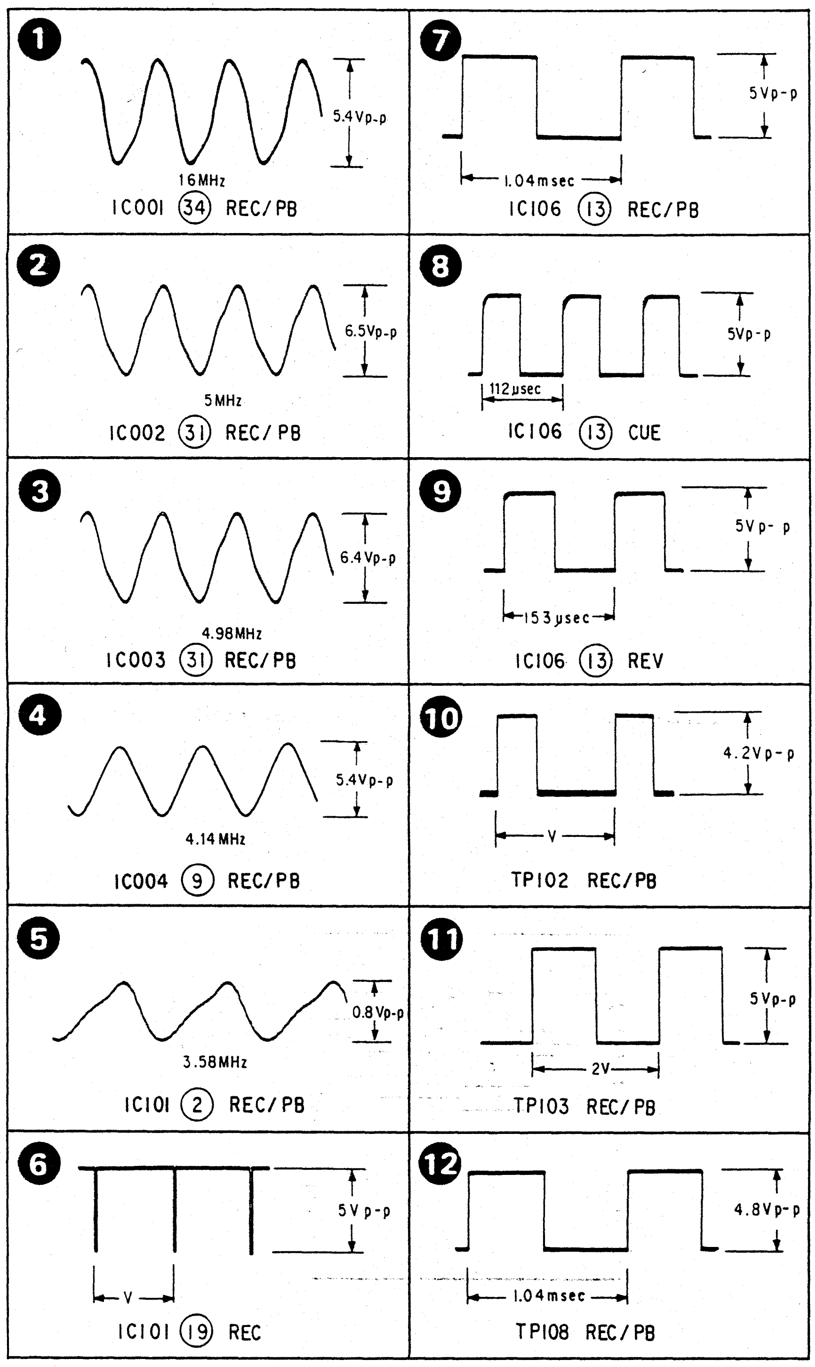
IC101 ( TA8607F )


AGC
N
D
DOC
AGC
D.O.C
GND
Vcc
1
2
3
4
5
6
7
8
9
10
11
12
24
23
22
21
20
19
18
17
16
15
14
13

- **SIGNAL PATH**

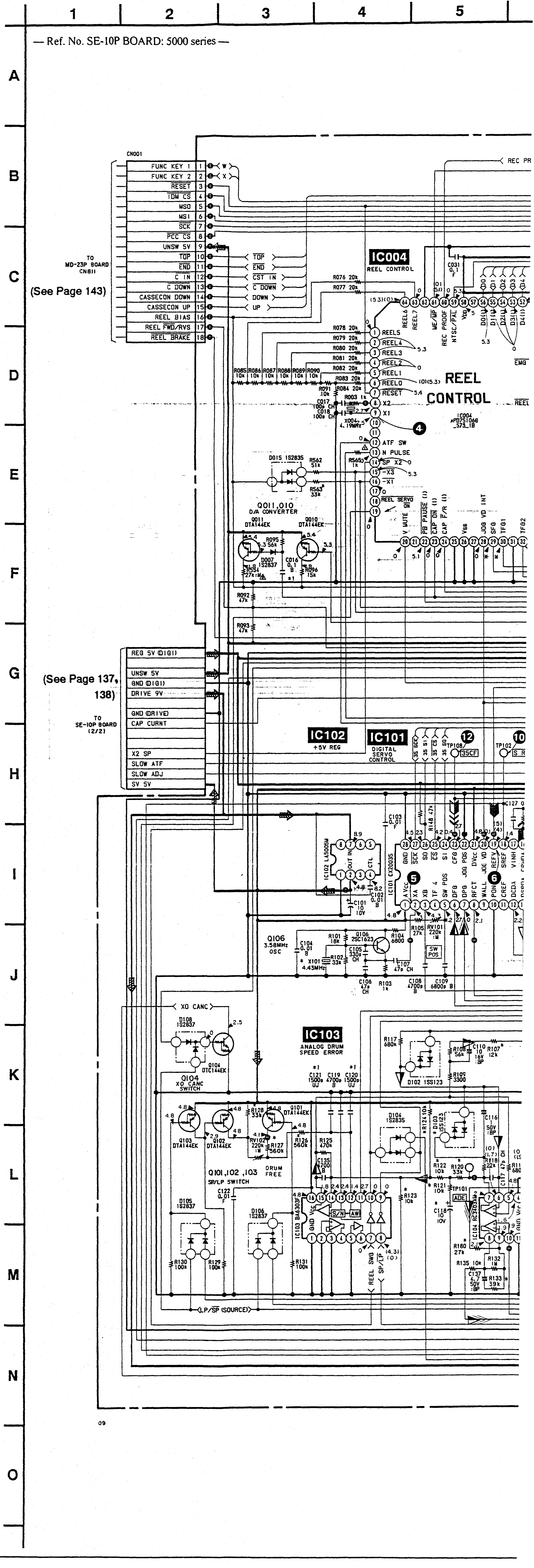
| | VIDEO SIGNAL | | | AUDIO SIGNAL |
|---|---|---|---|---|
| | CHROMA | Y | Y/CHROMA/DATA | |
| REC | ➡ | ⇛ | ⇛ | ➡ |
| PB | ⇨ | ⇨ | ⇨ | ⇨ |

## SE-10P BOARD (1/2)



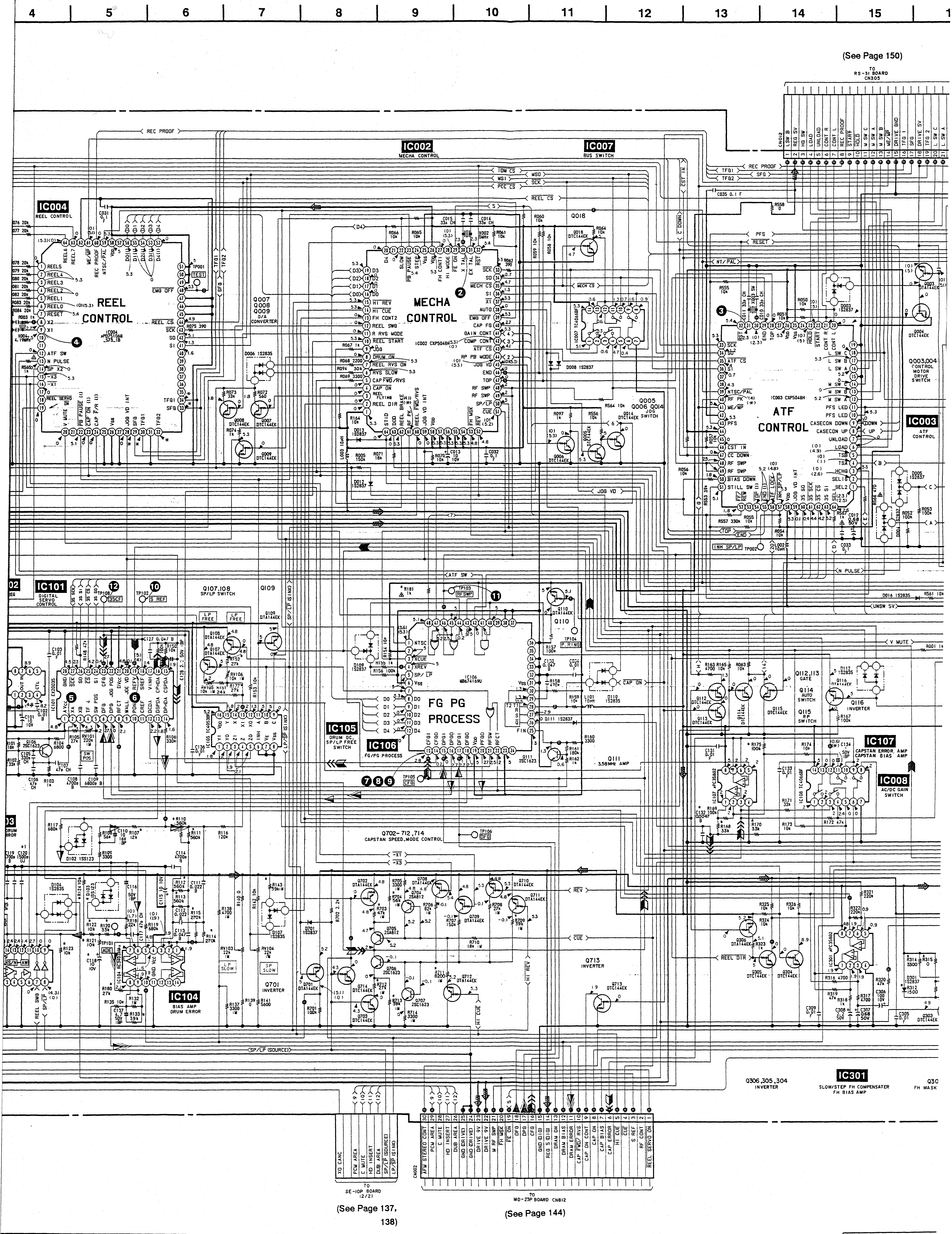
## SE-10P (SERVO, SYSTEM CONTROL) SCHEMATIC DIAGRAM

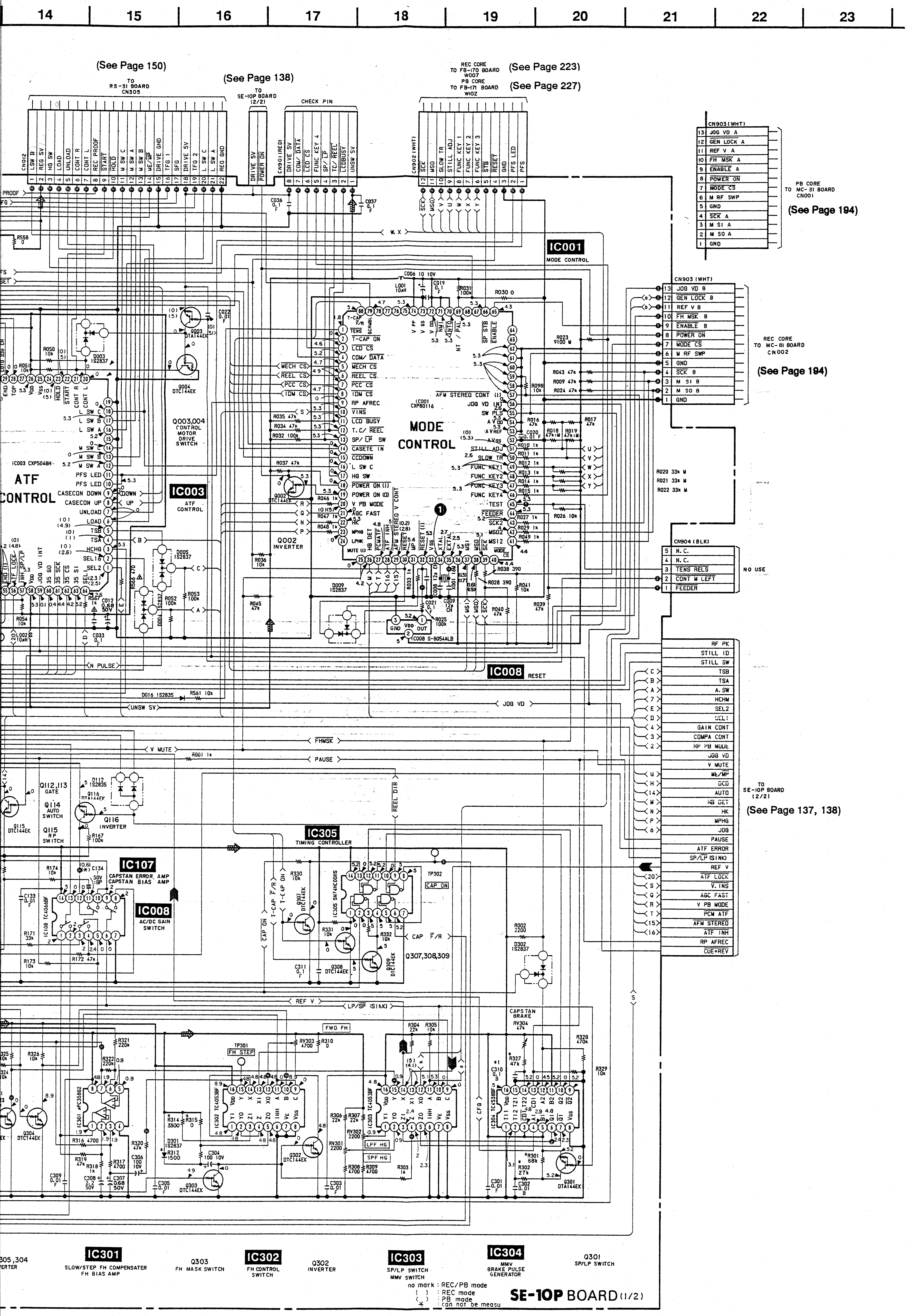
— Ref. No. SE-10P BOARD: 5000 series —


1
2
3
4
5
A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
CN001
FUNC KEY 1
FUNC KEY 2
RESET
TDM CS
MSO
MSI
SCK
PCC CS
UNSW 5V
TOP
END
C IN
C DOWN
CASSECON DOWN
CASSECON UP
REEL BIAS
REEL FWD/RVS
REEL BRAKE
TO MD-23P BOARD CN811
(See Page 143)
IC004
REEL CONTROL
REEL CONTROL
Q011,010 D/A CONVERTER
REG 5V (DIGI)
UNSW 5V
GND (DIGI)
DRIVE 9V
GND (DRIVE)
CAP CURNT
X2 SP
SLOW ATF
SLOW ADJ
SV 5V
(See Page 137, 138)
TO SE-10P BOARD (2/2)
IC102
+5V REG
IC101
DIGITAL SERVO CONTROL
Q106 3.58MHz OSC
XO CANC
Q104 XO CANC SWITCH
IC103
ANALOG DRUM SPEED ERROR
Q101,102,103 SP/LP SWITCH
DRUM FREE
LP/SP (SOURCE)

- **SIGNAL PATH**

| | REC | REC/PB | PB |
|---|---|---|---|
| Drum speed servo | | ▷ | |
| Drum phase servo | | ▷▷ | |
| Drum servo (speed and phase) | | ▷▷▷ | |
| Capstan speed servo | | ➢ | |
| Capstan phase servo | | ➢〉 | |
| Capstan servo (speed and phase) | | ➢〉〉 | |
| Ref. signal | ➤ | | |


4
5
6
7
8
9
10
11
12
13
14
15
(See Page 150)
TO RS-31 BOARD CN305
IC002 MECHA CONTROL
IC007 BUS SWITCH
IC004 REEL CONTROL
REEL CONTROL
MECHA CONTROL
ATF CONTROL
IC003 ATF CONTROL
Q007 Q008 Q009 D/A CONVERTER
Q018
Q005 Q006 Q014 JOG SWITCH
Q003,004 CONTROL MOTOR DRIVE SWITCH
IC101 DIGITAL SERVO CONTROL
Q107,108 SP/LP SWITCH
Q109
FG PG PROCESS
IC106 FG/PG PROCESS
IC105 DRUM DC, SP/LP FREE SWITCH
Q110
Q111 3.58MHz AMP
Q112,113 GATE
Q114 AUTO SWITCH
Q115 RP SWITCH
Q116 INVERTER
IC107 CAPSTAN ERROR AMP CAPSTAN BIAS AMP
IC008 AC/DC GAIN SWITCH
IC104 BIAS AMP DRUM ERROR
Q702-712,714 CAPSTAN SPEED,MODE CONTROL
Q701 INVERTER
Q713 INVERTER
Q306,305,304 INVERTER
IC301 SLOW/STEP FH COMPENSATER FH BIAS AMP
FH MASK
TO SE-10P BOARD (2/2)
(See Page 137, 138)
TO MD-23P BOARD CN812
(See Page 144)


14
15
16
17
18
19
20
21
22
23
(See Page 150)
TO RS-31 BOARD CN305
(See Page 138)
TO SE-10P BOARD (2/2)
CHECK PIN
REC CORE TO FB-170 BOARD W007
PB CORE TO FB-171 BOARD W102
(See Page 223)
(See Page 227)
CN903 (WHT)
PB CORE TO MC-31 BOARD CN001
(See Page 194)
IC001
MODE CONTROL
CN903 (WHT)
REC CORE TO MC-81 BOARD CN002
(See Page 194)
MODE CONTROL
IC001 CXP80116
IC003
ATF CONTROL
IC003 CXP5048H-
ATF CONTROL
Q003,004 CONTROL MOTOR DRIVE SWITCH
Q002 INVERTER
CN904 (BLK)
NO USE
IC008
RESET
IC008 S-8054ALB
TO SE-10P BOARD (2/2)
(See Page 137, 138)
Q112,113 GATE
Q114 AUTO SWITCH
Q115 RP SWITCH
Q116 INVERTER
IC107
CAPSTAN ERROR AMP
CAPSTAN BIAS AMP
IC008
AC/DC GAIN SWITCH
IC305
TIMING CONTROLLER
Q307,308,309
CAPSTAN BRAKE
IC301
SLOW/STEP FH COMPENSATER
FH BIAS AMP
Q303
FH MASK SWITCH
IC302
FH CONTROL SWITCH
Q302
INVERTER
IC303
SP/LP SWITCH
MMV SWITCH
IC304
MMV
BRAKE PULSE GENERATOR
Q301
SP/LP SWITCH
305,304
VERTER

no mark : REC/PB mode
( ) : REC mode
〈 〉 : PB mode
✳ : can not be measu

**SE-10P** BOARD (1/2)

## SE-10P (SERVO, SYSTEM CONTROL), IG-4 (BOARD LINK) PRINTED WIRING BOARDS

— Ref. No. SE-10P BOARD: 5000 series, IG-4 BOARD: 6000 series —

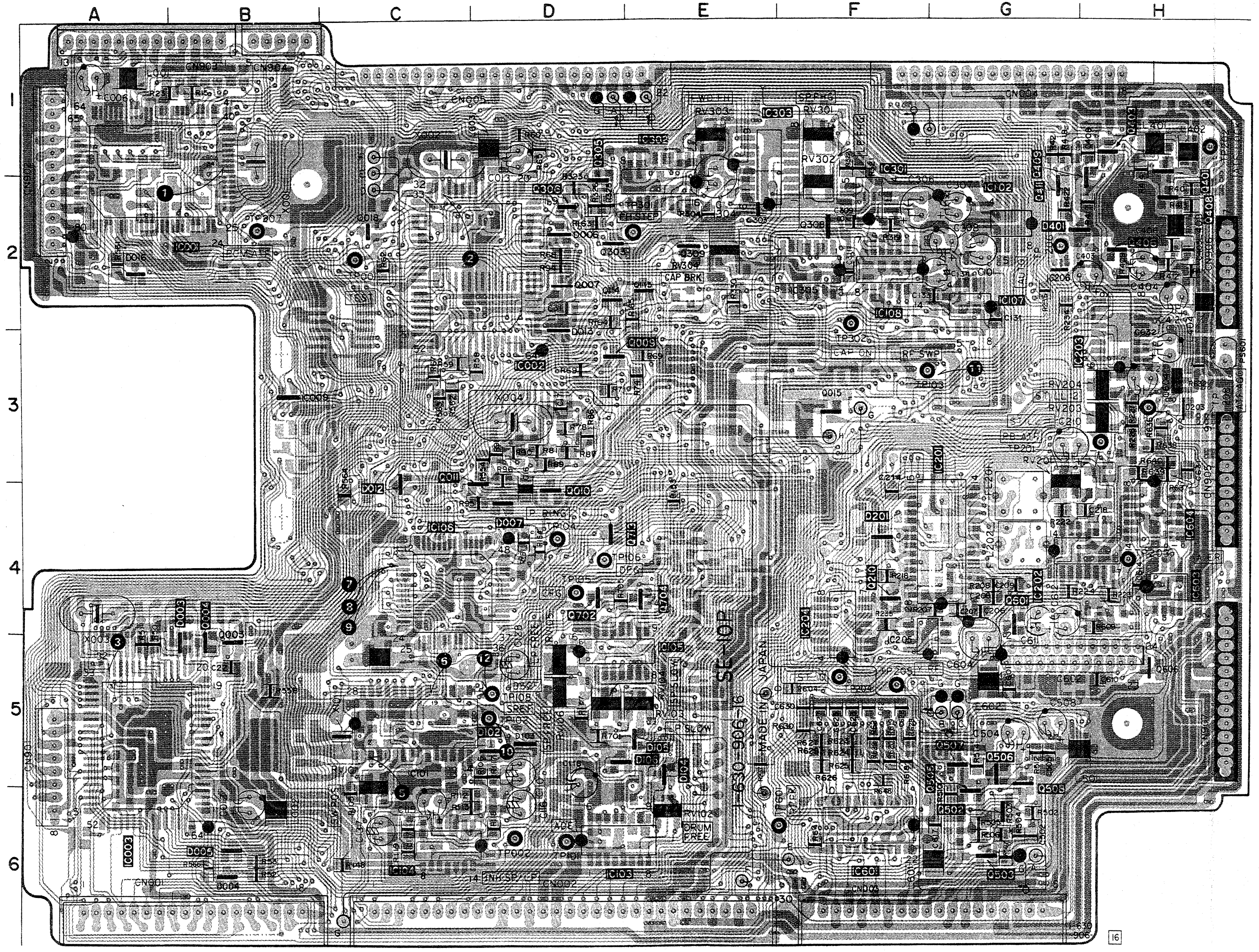
SE-10P BOARD (COMPONENT SIDE)

| | |
|---|---|
| D003 | B-5 |
| D004 | B-6 |
| D005 | B-6 |
| D006 | D-2 |
| D007 | D-4 |
| D012 | C-4 |
| D013 | D-3 |
| D016 | A-2 |
| D101 | D-6 |
| D102 | D-5 |
| D103 | D-5 |
| D104 | E-5 |
| D105 | E-5 |
| D106 | E-5 |
| D201 | F-4 |
| D401 | G-2 |
| IC001 | B-2 |
| IC002 | D-3 |
| IC003 | A-5 |
| IC101 | C-5 |
| IC102 | G-2 |
| IC103 | D-6 |
| IC104 | C-6 |
| IC105 | E-5 |
| IC106 | C-4 |
| IC107 | G-2 |
| IC108 | F-2 |
| IC201 | G-4 |
| IC202 | G-4 |
| IC203 | H-3 |
| IC204 | F-4 |
| IC205 | F-4 |
| IC301 | F-2 |
| IC302 | E-2 |
| IC303 | E-1 |
| IC305 | E-3 |
| IC601 | F-6 |
| IC602 | G-5 |
| IC603 | H-4 |
| IC604 | H-4 |
| Q003 | B-4 |
| Q004 | B-4 |
| Q007 | D-2 |
| Q009 | E-3 |
| Q010 | D-4 |
| Q011 | C-3 |
| Q015 | F-3 |
| Q018 | C-2 |
| Q114 | D-2 |
| Q210 | F-4 |
| Q303 | E-2 |
| Q305 | D-2 |
| Q306 | D-2 |
| Q308 | F-2 |
| Q309 | E-2 |
| Q401 | H-2 |
| Q403 | H-1 |
| Q406 | H-2 |
| Q408 | H-2 |
| Q409 | G-2 |
| Q411 | G-2 |
| Q502 | G-6 |
| Q503 | G-6 |
| Q505 | G-5 |
| Q506 | G-5 |
| Q507 | G-5 |
| Q508 | G-5 |
| Q601 | G-4 |
| Q604 | H-3 |
| Q606 | H-5 |
| Q702 | D-4 |
| Q704 | E-4 |
| Q713 | E-4 |

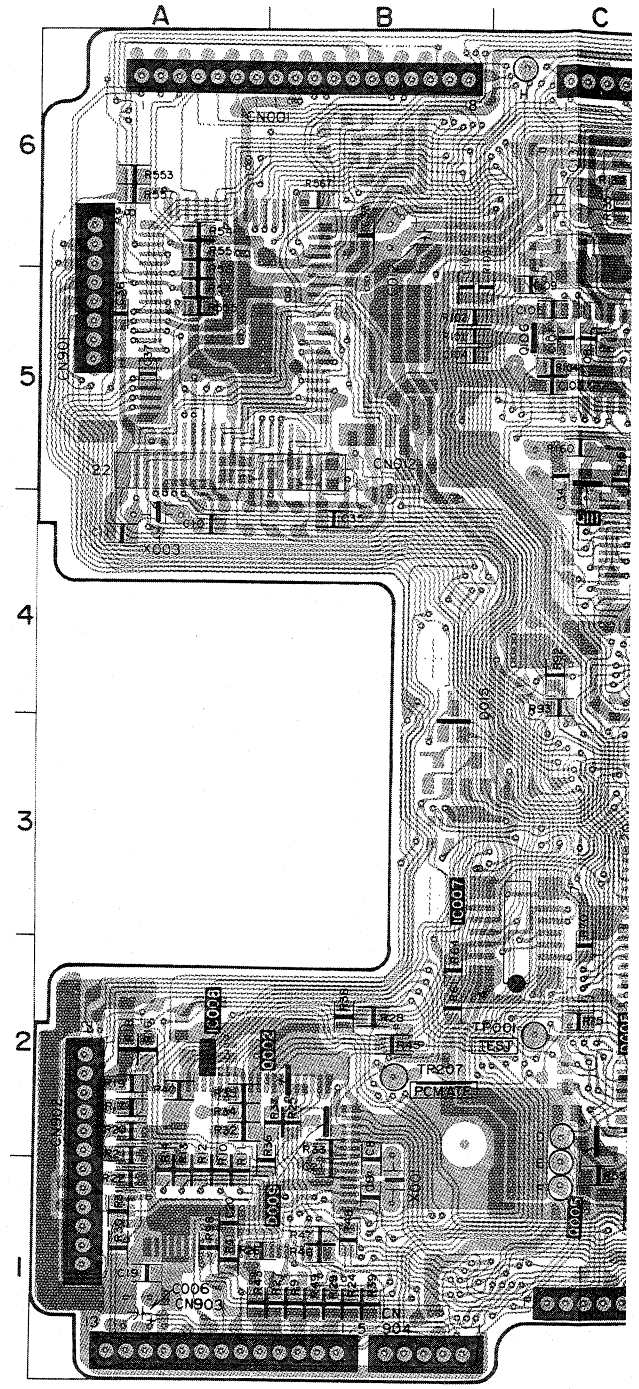
SE-10P BOARD (CONDUCTOR SIDE)

| | |
|---|---|
| D008 | C-2 |
| D009 | B-1 |
| D015 | B-4 |
| D107 | D-5 |
| D108 | D-5 |
| D109 | D-4 |
| D110 | D-4 |
| D111 | C-5 |
| D112 | F-3 |
| D203 | H-3 |
| D301 | E-1 |
| D302 | E-2 |
| D701 | E-5 |
| IC004 | C-3 |
| IC007 | C-3 |
| IC008 | A-2 |
| IC304 | F-3 |
| Q002 | B-2 |
| Q005 | C-1 |
| Q006 | D-2 |
| Q008 | D-2 |
| Q014 | C-1 |
| Q101 | E-6 |
| Q102 | E-5 |
| Q103 | E-5 |
| Q104 | C-5 |
| Q106 | B-5 |
| Q107 | D-5 |
| Q108 | D-5 |
| Q109 | D-4 |
| Q110 | D-4 |
| Q111 | C-4 |
| Q112 | D-2 |
| Q113 | D-1 |
| Q115 | E-2 |
| Q116 | F-2 |
| Q202 | G-4 |
| Q205 | H-3 |
| Q209 | F-4 |
| Q301 | F-3 |
| Q302 | E-1 |
| Q304 | D-2 |
| Q307 | F-2 |
| Q402 | H-1 |
| Q404 | H-2 |
| Q405 | H-1 |
| Q407 | H-2 |
| Q410 | G-2 |
| Q504 | G-6 |
| Q605 | H-3 |
| Q701 | D-4 |
| Q703 | E-5 |
| Q705 | E-4 |
| Q706 | E-4 |
| Q707 | E-4 |
| Q708 | E-4 |
| Q709 | E-4 |
| Q710 | E-4 |
| Q711 | E-4 |
| Q712 | E-4 |
| Q714 | E-5 |

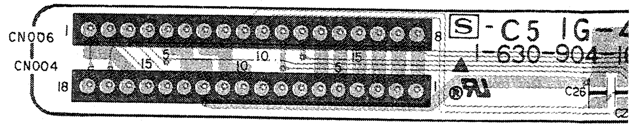
**SE-10P** BOARD (COMPONENT SIDE)

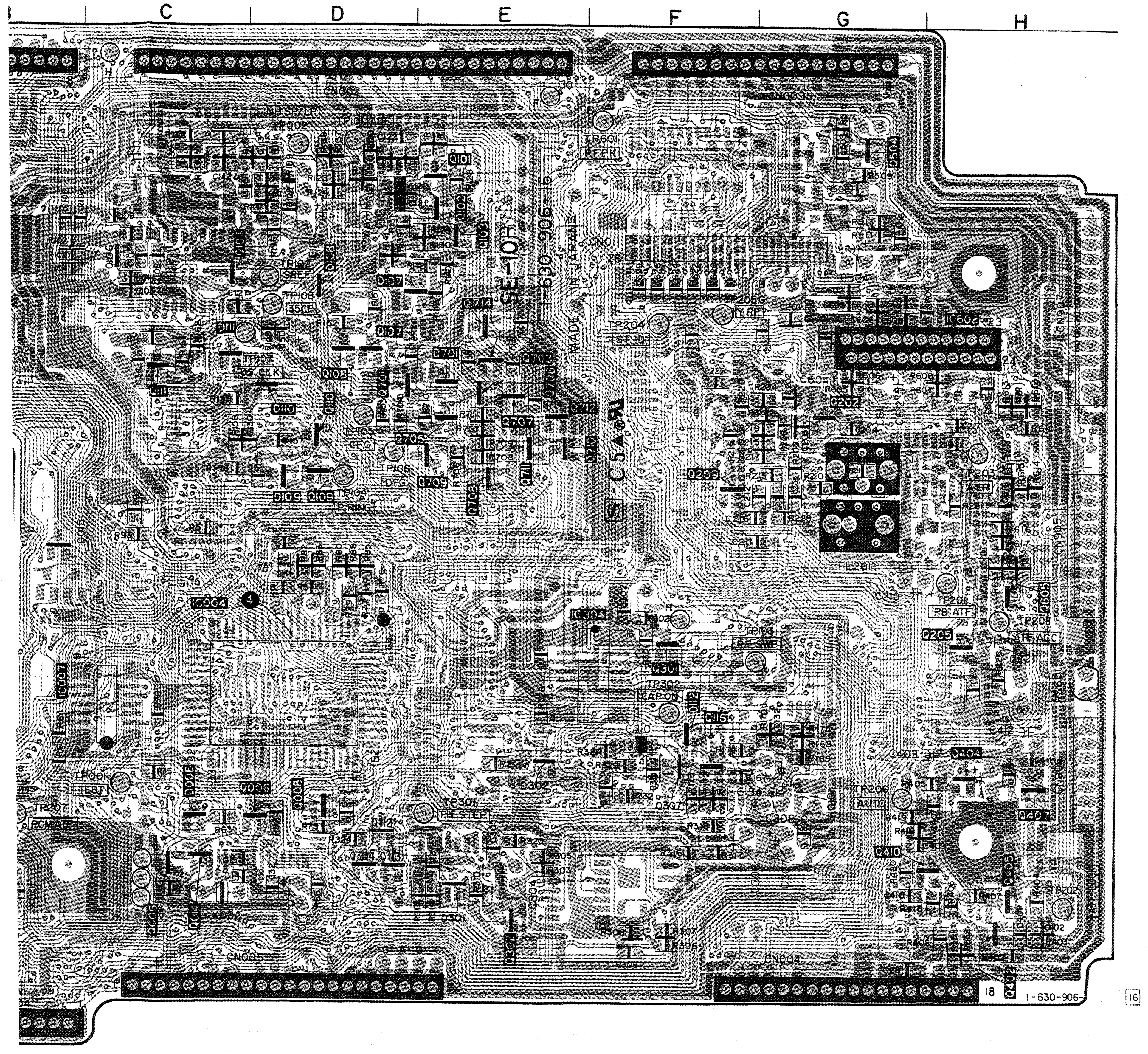

A
B
C
D
E
F
G
H
1
2
3
4
5
6
SE-10P
1-630-906-16
MADE IN JAPAN
CAP BRK
CAP ON
RF SWP
P SLOW
DRUM FREE
16

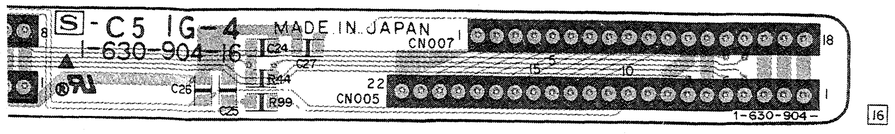
**SE-10P** BOARD (COMPONENT SIDE)


A
B
C
6
5
4
3
2
1
CN001
CN903
CN904
PCM ATE

**IG-4** BOARD (COMPONENT SIDE)


CN006
CN004
8
18
15
10
S -C5 IG-4
1-630-904-1





* A-7062-167-A SE-10 (P) BOARD, COMPLETE
**************************
(Ref. No 5, 000 Series)

< DIODE >

| | | | |
|---|---|---|---|
| D003 | 8-719-400-18 | DIODE | MA152WK |
| D004 | 8-719-400-18 | DIODE | MA152WK |
| D005 | 8-719-400-18 | DIODE | MA152WK |
| D006 | 8-719-104-34 | DIODE | 1S2836 |
| D007 | 8-719-400-18 | DIODE | MA152WK |
| D008 | 8-719-400-18 | DIODE | MA152WK |
| D009 | 8-719-400-18 | DIODE | MA152WK |
| D012 | 8-719-400-18 | DIODE | MA152WK |
| D013 | 8-719-400-18 | DIODE | MA152WK |
| D015 | 8-719-104-34 | DIODE | 1S2836 |
| D016 | 8-719-104-34 | DIODE | 1S2836 |
| D018 | 8-719-400-18 | DIODE | MA152WK |
| D102 | 8-719-800-76 | DIODE | 1SS226 |
| D103 | 8-719-800-76 | DIODE | 1SS226 |
| D104 | 8-719-104-34 | DIODE | 1S2836 |
| D105 | 8-719-400-18 | DIODE | MA152WK |
| D106 | 8-719-400-18 | DIODE | MA152WK |
| D107 | 8-719-104-34 | DIODE | 1S2836 |
| D108 | 8-719-400-18 | DIODE | MA152WK |
| D109 | 8-719-400-18 | DIODE | MA152WK |
| D110 | 8-719-104-34 | DIODE | 1S2836 |
| D111 | 8-719-400-18 | DIODE | MA152WK |
| D112 | 8-719-104-34 | DIODE | 1S2836 |
| D201 | 8-719-400-18 | DIODE | MA152WK |
| D203 | 8-719-105-82 | DIODE | RD5. 1M |
| D301 | 8-719-400-18 | DIODE | MA152WK |
| D302 | 8-719-400-18 | DIODE | MA152WK |
| D401 | 8-719-800-76 | DIODE | 1SS226 |
| D701 | 8-719-400-18 | DIODE | MA152WK |

< IC >

| | | | |
|---|---|---|---|
| IC001 | 8-752-816-72 | IC | CXP80116-692Q |
| IC003 | 8-752-815-13 | IC | CXP5048H-222Q |
| IC004 | 8-759-144-21 | IC | uPD75106G-573-1B |
| IC007 | 8-759-008-67 | IC | MC14066BF |
| IC008 | 8-759-937-56 | IC | S-8054ALB |
| IC101 | 8-752-003-50 | IC | CX20035 |
| IC102 | 8-752-817-64 | IC | CXP5048H-244Q |
| IC102 | 8-759-803-47 | IC | LA5005M |
| IC103 | 8-759-925-66 | IC | BA6303F |
| IC104 | 8-759-981-75 | IC | RC3403AM |
| IC105 | 8-759-300-71 | IC | TC4053BF |
| IC106 | 8-759-971-25 | IC | MB674169U |
| IC107 | 8-759-100-94 | IC | uPC358G2 |
| IC108 | 8-759-008-67 | IC | MC14066BF |
| IC201 | 8-759-928-56 | IC | CXA1042M |
| IC202 | 8-759-150-05 | IC | uPC324G2 |
| IC203 | 8-759-300-71 | IC | TC4053BF |
| IC204 | 8-759-927-46 | IC | SN74HC00ANS |
| IC205 | 8-759-711-79 | IC | NJM2233BM |
| IC206 | 8-759-035-93 | IC | SC7S32F |
| IC301 | 8-759-100-94 | IC | uPC358G2 |
| IC302 | 8-759-300-71 | IC | TC4053BF |
| IC303 | 8-759-300-71 | IC | TC4053BF |
| IC304 | 8-759-200-90 | IC | TC4538BF |
| IC305 | 8-759-927-46 | IC | SN74HC00ANS |
| IC601 | 8-759-927-94 | IC | BU3707F |
| IC602 | 8-759-927-52 | IC | BA7036LS |
| IC603 | 8-759-100-93 | IC | uPC393G2 |
| IC604 | 8-759-150-05 | IC | uPC324G2 |

< TRANSISTOR >

| | | | |
|---|---|---|---|
| Q002 | 8-729-901-01 | TRANSISTOR | DTC144EK |
| Q003 | 8-729-901-06 | TRANSISTOR | DTA144EK |
| Q004 | 8-729-901-01 | TRANSISTOR | DTC144EK |
| Q005 | 8-729-901-01 | TRANSISTOR | DTC144EK |
| Q006 | 8-729-901-01 | TRANSISTOR | DTC144EK |
| Q007 | 8-729-901-01 | TRANSISTOR | DTC144EK |
| Q008 | 8-729-901-01 | TRANSISTOR | DTC144EK |
| Q009 | 8-729-901-01 | TRANSISTOR | DTC144EK |
| Q010 | 8-729-901-06 | TRANSISTOR | DTA144EK |
| Q011 | 8-729-901-06 | TRANSISTOR | DTA144EK |
| Q014 | 8-729-901-01 | TRANSISTOR | DTC144EK |
| Q015 | 8-729-901-01 | TRANSISTOR | DTC144EK |
| Q018 | 8-729-901-01 | TRANSISTOR | DTC144EK |
| Q101 | 8-729-901-06 | TRANSISTOR | DTA144EK |
| Q102 | 8-729-901-06 | TRANSISTOR | DTA144EK |
| Q103 | 8-729-901-06 | TRANSISTOR | DTA144EK |
| Q104 | 8-729-901-01 | TRANSISTOR | DTC144EK |
| Q106 | 8-729-100-66 | TRANSISTOR | 2SC1623 |
| Q107 | 8-729-901-06 | TRANSISTOR | DTA144EK |
| Q108 | 8-729-901-06 | TRANSISTOR | DTA144EK |
| Q109 | 8-729-901-06 | TRANSISTOR | DTA144EK |
| Q110 | 8-729-901-06 | TRANSISTOR | DTA144EK |
| Q111 | 8-729-100-66 | TRANSISTOR | 2SC1623 |
| Q112 | 8-729-901-01 | TRANSISTOR | DTC144EK |
| Q113 | 8-729-901-01 | TRANSISTOR | DTC144EK |
| Q114 | 8-729-901-01 | TRANSISTOR | DTC144EK |
| Q115 | 8-729-901-01 | TRANSISTOR | DTC144EK |
| Q116 | 8-729-901-06 | TRANSISTOR | DTA144EK |
| Q202 | 8-729-216-22 | TRANSISTOR | 2SA1162 |
| Q205 | 8-729-901-01 | TRANSISTOR | DTC144EK |
| Q209 | 8-729-901-06 | TRANSISTOR | DTA144EK |
| Q210 | 8-729-901-01 | TRANSISTOR | DTC144EK |
| Q301 | 8-729-901-06 | TRANSISTOR | DTA144EK |
| Q302 | 8-729-901-01 | TRANSISTOR | DTC144EK |
| Q303 | 8-729-901-01 | TRANSISTOR | DTC144EK |
| Q304 | 8-729-901-01 | TRANSISTOR | DTC144EK |
| Q305 | 8-729-901-01 | TRANSISTOR | DTC144EK |
| Q306 | 8-729-901-06 | TRANSISTOR | DTA144EK |
| Q307 | 8-729-901-01 | TRANSISTOR | DTC144EK |
| Q308 | 8-729-901-01 | TRANSISTOR | DTC144EK |
| Q309 | 8-729-901-01 | TRANSISTOR | DTC144EK |
| Q401 | 8-729-216-22 | TRANSISTOR | 2SA1162 |
| Q402 | 8-729-100-66 | TRANSISTOR | 2SC1623 |
| Q403 | 8-729-100-66 | TRANSISTOR | 2SC1623 |
| Q404 | 8-729-216-22 | TRANSISTOR | 2SA1162 |
| Q405 | 8-729-100-66 | TRANSISTOR | 2SC1623 |
| Q406 | 8-729-216-22 | TRANSISTOR | 2SA1162 |
| Q407 | 8-729-100-66 | TRANSISTOR | 2SC1623 |
| Q408 | 8-729-216-22 | TRANSISTOR | 2SA1162 |
| Q409 | 8-729-100-66 | TRANSISTOR | 2SC1623 |
| Q410 | 8-729-100-66 | TRANSISTOR | 2SC1623 |
| Q411 | 8-729-100-66 | TRANSISTOR | 2SC1623 |
| Q502 | 8-729-100-66 | TRANSISTOR | 2SC1623 |
| Q503 | 8-729-901-06 | TRANSISTOR | DTA144EK |
| Q504 | 8-729-100-66 | TRANSISTOR | 2SC1623 |
| Q505 | 8-729-100-66 | TRANSISTOR | 2SC1623 |
| Q506 | 8-729-100-66 | TRANSISTOR | 2SC1623 |
| Q507 | 8-729-901-06 | TRANSISTOR | DTA144EK |
| Q508 | 8-729-901-06 | TRANSISTOR | DTA144EK |
| Q601 | 8-729-901-06 | TRANSISTOR | DTA144EK |
| Q604 | 8-729-805-25 | TRANSISTOR | 2SB1121 |
| Q605 | 8-729-100-66 | TRANSISTOR | 2SC1623 |
| Q606 | 8-729-901-06 | TRANSISTOR | DTA144EK |
| Q701 | 8-729-901-06 | TRANSISTOR | DTA144EK |
| Q702 | 8-729-901-06 | TRANSISTOR | DTA144EK |
| Q703 | 8-729-901-01 | TRANSISTOR | DTC144EK |
| Q704 | 8-729-216-22 | TRANSISTOR | 2SA1162 |
| Q705 | 8-729-216-22 | TRANSISTOR | 2SA1162 |
| Q706 | 8-729-100-66 | TRANSISTOR | 2SC1623 |
| Q707 | 8-729-100-66 | TRANSISTOR | 2SC1623 |
| Q708 | 8-729-901-06 | TRANSISTOR | DTA144EK |
| Q709 | 8-729-901-06 | TRANSISTOR | DTA144EK |
| Q710 | 8-729-901-06 | TRANSISTOR | DTA144EK |
| Q711 | 8-729-901-06 | TRANSISTOR | DTA144EK |
| Q712 | 8-729-901-06 | TRANSISTOR | DTA144EK |
| Q713 | 8-729-901-01 | TRANSISTOR | DTC144EK |
| Q714 | 8-729-901-01 | TRANSISTOR | DTC144EK |

* A-7062-167-A SE-10 (P) BOARD, COMPLETE
**************************
(Ref. No 5, 000 Series)

< DIODE >

| | | | |
|---|---|---|---|
| D003 | 8-719-400-18 | DIODE | MA152WK |
| D004 | 8-719-400-18 | DIODE | MA152WK |
| D005 | 8-719-400-18 | DIODE | MA152WK |
| D006 | 8-719-104-34 | DIODE | 1S2836 |
| D007 | 8-719-400-18 | DIODE | MA152WK |
| D008 | 8-719-400-18 | DIODE | MA152WK |
| D009 | 8-719-400-18 | DIODE | MA152WK |
| D012 | 8-719-400-18 | DIODE | MA152WK |
| D013 | 8-719-400-18 | DIODE | MA152WK |
| D015 | 8-719-104-34 | DIODE | 1S2836 |
| D016 | 8-719-104-34 | DIODE | 1S2836 |
| D018 | 8-719-400-18 | DIODE | MA152WK |
| D102 | 8-719-800-76 | DIODE | 1SS226 |
| D103 | 8-719-800-76 | DIODE | 1SS226 |
| D104 | 8-719-104-34 | DIODE | 1S2836 |
| D105 | 8-719-400-18 | DIODE | MA152WK |
| D106 | 8-719-400-18 | DIODE | MA152WK |
| D107 | 8-719-104-34 | DIODE | 1S2836 |
| D108 | 8-719-400-18 | DIODE | MA152WK |
| D109 | 8-719-400-18 | DIODE | MA152WK |
| D110 | 8-719-104-34 | DIODE | 1S2836 |
| D111 | 8-719-400-18 | DIODE | MA152WK |
| D112 | 8-719-104-34 | DIODE | 1S2836 |
| D201 | 8-719-400-18 | DIODE | MA152WK |
| D203 | 8-719-105-82 | DIODE | RD5. 1M |
| D301 | 8-719-400-18 | DIODE | MA152WK |
| D302 | 8-719-400-18 | DIODE | MA152WK |
| D401 | 8-719-800-76 | DIODE | 1SS226 |
| D701 | 8-719-400-18 | DIODE | MA152WK |

< IC >

| | | | |
|---|---|---|---|
| IC001 | 8-752-816-72 | IC | CXP80116-692Q |
| IC003 | 8-752-815-13 | IC | CXP5048H-222Q |
| IC004 | 8-759-144-21 | IC | uPD75106G-573-1B |
| IC007 | 8-759-008-67 | IC | MC14066BF |
| IC008 | 8-759-937-56 | IC | S-8054ALB |
| IC101 | 8-752-003-50 | IC | CX20035 |
| IC102 | 8-752-817-64 | IC | CXP5048H-244Q |
| IC102 | 8-759-803-47 | IC | LA5005M |
| IC103 | 8-759-925-66 | IC | BA6303F |
| IC104 | 8-759-981-75 | IC | RC3403AM |
| IC105 | 8-759-300-71 | IC | TC4053BF |
| IC106 | 8-759-971-25 | IC | MB674169U |
| IC107 | 8-759-100-94 | IC | uPC358G2 |
| IC108 | 8-759-008-67 | IC | MC14066BF |
| IC201 | 8-759-928-56 | IC | CXA1042M |
| IC202 | 8-759-150-05 | IC | uPC324G2 |
| IC203 | 8-759-300-71 | IC | TC4053BF |
| IC204 | 8-759-927-46 | IC | SN74HC00ANS |
| IC205 | 8-759-711-79 | IC | NJM2233BM |
| IC206 | 8-759-035-93 | IC | SC7S32F |
| IC301 | 8-759-100-94 | IC | uPC358G2 |
| IC302 | 8-759-300-71 | IC | TC4053BF |
| IC303 | 8-759-300-71 | IC | TC4053BF |
| IC304 | 8-759-200-90 | IC | TC4538BF |
| IC305 | 8-759-927-46 | IC | SN74HC00ANS |
| IC601 | 8-759-927-94 | IC | BU3707F |
| IC602 | 8-759-927-52 | IC | BA7036LS |
| IC603 | 8-759-100-93 | IC | uPC393G2 |
| IC604 | 8-759-150-05 | IC | uPC324G2 |

< TRANSISTOR >

| | | | |
|---|---|---|---|
| Q002 | 8-729-901-01 | TRANSISTOR | DTC144EK |
| Q003 | 8-729-901-06 | TRANSISTOR | DTA144EK |
| Q004 | 8-729-901-01 | TRANSISTOR | DTC144EK |
| Q005 | 8-729-901-01 | TRANSISTOR | DTC144EK |
| Q006 | 8-729-901-01 | TRANSISTOR | DTC144EK |
| Q007 | 8-729-901-01 | TRANSISTOR | DTC144EK |
| Q008 | 8-729-901-01 | TRANSISTOR | DTC144EK |
| Q009 | 8-729-901-01 | TRANSISTOR | DTC144EK |
| Q010 | 8-729-901-06 | TRANSISTOR | DTA144EK |
| Q011 | 8-729-901-06 | TRANSISTOR | DTA144EK |
| Q014 | 8-729-901-01 | TRANSISTOR | DTC144EK |
| Q015 | 8-729-901-01 | TRANSISTOR | DTC144EK |
| Q018 | 8-729-901-01 | TRANSISTOR | DTC144EK |
| Q101 | 8-729-901-06 | TRANSISTOR | DTA144EK |
| Q102 | 8-729-901-06 | TRANSISTOR | DTA144EK |
| Q103 | 8-729-901-06 | TRANSISTOR | DTA144EK |
| Q104 | 8-729-901-01 | TRANSISTOR | DTC144EK |
| Q106 | 8-729-100-66 | TRANSISTOR | 2SC1623 |
| Q107 | 8-729-901-06 | TRANSISTOR | DTA144EK |
| Q108 | 8-729-901-06 | TRANSISTOR | DTA144EK |
| Q109 | 8-729-901-06 | TRANSISTOR | DTA144EK |
| Q110 | 8-729-901-06 | TRANSISTOR | DTA144EK |
| Q111 | 8-729-100-66 | TRANSISTOR | 2SC1623 |
| Q112 | 8-729-901-01 | TRANSISTOR | DTC144EK |
| Q113 | 8-729-901-01 | TRANSISTOR | DTC144EK |
| Q114 | 8-729-901-01 | TRANSISTOR | DTC144EK |
| Q115 | 8-729-901-01 | TRANSISTOR | DTC144EK |
| Q116 | 8-729-901-06 | TRANSISTOR | DTA144EK |
| Q202 | 8-729-216-22 | TRANSISTOR | 2SA1162 |
| Q205 | 8-729-901-01 | TRANSISTOR | DTC144EK |
| Q209 | 8-729-901-06 | TRANSISTOR | DTA144EK |
| Q210 | 8-729-901-01 | TRANSISTOR | DTC144EK |
| Q301 | 8-729-901-06 | TRANSISTOR | DTA144EK |
| Q302 | 8-729-901-01 | TRANSISTOR | DTC144EK |
| Q303 | 8-729-901-01 | TRANSISTOR | DTC144EK |
| Q304 | 8-729-901-01 | TRANSISTOR | DTC144EK |
| Q305 | 8-729-901-01 | TRANSISTOR | DTC144EK |
| Q306 | 8-729-901-06 | TRANSISTOR | DTA144EK |
| Q307 | 8-729-901-01 | TRANSISTOR | DTC144EK |
| Q308 | 8-729-901-01 | TRANSISTOR | DTC144EK |
| Q309 | 8-729-901-01 | TRANSISTOR | DTC144EK |
| Q401 | 8-729-216-22 | TRANSISTOR | 2SA1162 |
| Q402 | 8-729-100-66 | TRANSISTOR | 2SC1623 |
| Q403 | 8-729-100-66 | TRANSISTOR | 2SC1623 |
| Q404 | 8-729-216-22 | TRANSISTOR | 2SA1162 |
| Q405 | 8-729-100-66 | TRANSISTOR | 2SC1623 |
| Q406 | 8-729-216-22 | TRANSISTOR | 2SA1162 |
| Q407 | 8-729-100-66 | TRANSISTOR | 2SC1623 |
| Q408 | 8-729-216-22 | TRANSISTOR | 2SA1162 |
| Q409 | 8-729-100-66 | TRANSISTOR | 2SC1623 |
| Q410 | 8-729-100-66 | TRANSISTOR | 2SC1623 |
| Q411 | 8-729-100-66 | TRANSISTOR | 2SC1623 |
| Q502 | 8-729-100-66 | TRANSISTOR | 2SC1623 |
| Q503 | 8-729-901-06 | TRANSISTOR | DTA144EK |
| Q504 | 8-729-100-66 | TRANSISTOR | 2SC1623 |
| Q505 | 8-729-100-66 | TRANSISTOR | 2SC1623 |
| Q506 | 8-729-100-66 | TRANSISTOR | 2SC1623 |
| Q507 | 8-729-901-06 | TRANSISTOR | DTA144EK |
| Q508 | 8-729-901-06 | TRANSISTOR | DTA144EK |
| Q601 | 8-729-901-06 | TRANSISTOR | DTA144EK |
| Q604 | 8-729-805-25 | TRANSISTOR | 2SB1121 |
| Q605 | 8-729-100-66 | TRANSISTOR | 2SC1623 |
| Q606 | 8-729-901-06 | TRANSISTOR | DTA144EK |
| Q701 | 8-729-901-06 | TRANSISTOR | DTA144EK |
| Q702 | 8-729-901-06 | TRANSISTOR | DTA144EK |
| Q703 | 8-729-901-01 | TRANSISTOR | DTC144EK |
| Q704 | 8-729-216-22 | TRANSISTOR | 2SA1162 |
| Q705 | 8-729-216-22 | TRANSISTOR | 2SA1162 |
| Q706 | 8-729-100-66 | TRANSISTOR | 2SC1623 |
| Q707 | 8-729-100-66 | TRANSISTOR | 2SC1623 |
| Q708 | 8-729-901-06 | TRANSISTOR | DTA144EK |
| Q709 | 8-729-901-06 | TRANSISTOR | DTA144EK |
| Q710 | 8-729-901-06 | TRANSISTOR | DTA144EK |
| Q711 | 8-729-901-06 | TRANSISTOR | DTA144EK |
| Q712 | 8-729-901-06 | TRANSISTOR | DTA144EK |
| Q713 | 8-729-901-01 | TRANSISTOR | DTC144EK |
| Q714 | 8-729-901-01 | TRANSISTOR | DTC144EK |

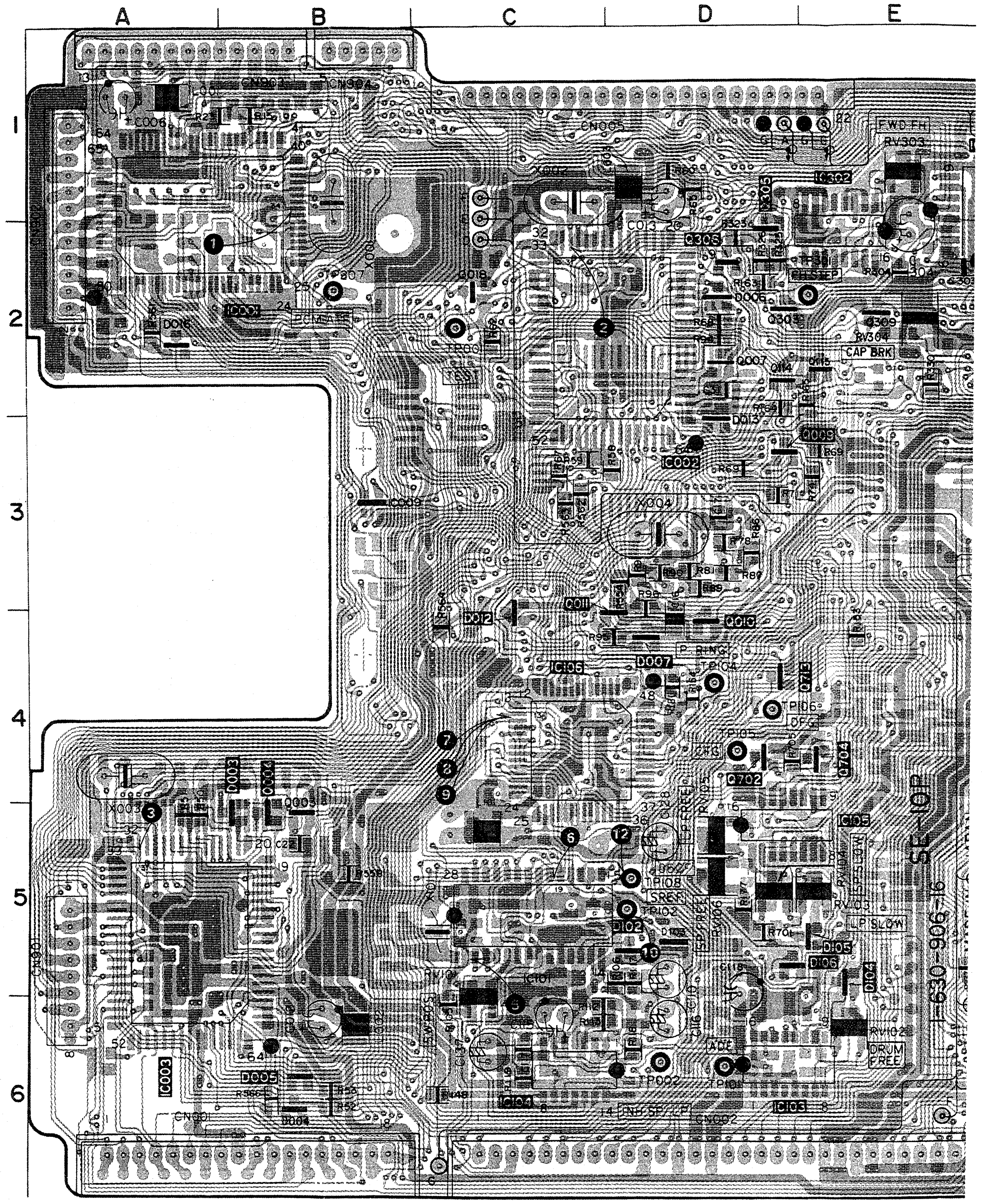
## SE-10P (SERVO, SYSTEM CONTROL), IG-4 (BOARD LINK) PRINTED WIRING BOARDS

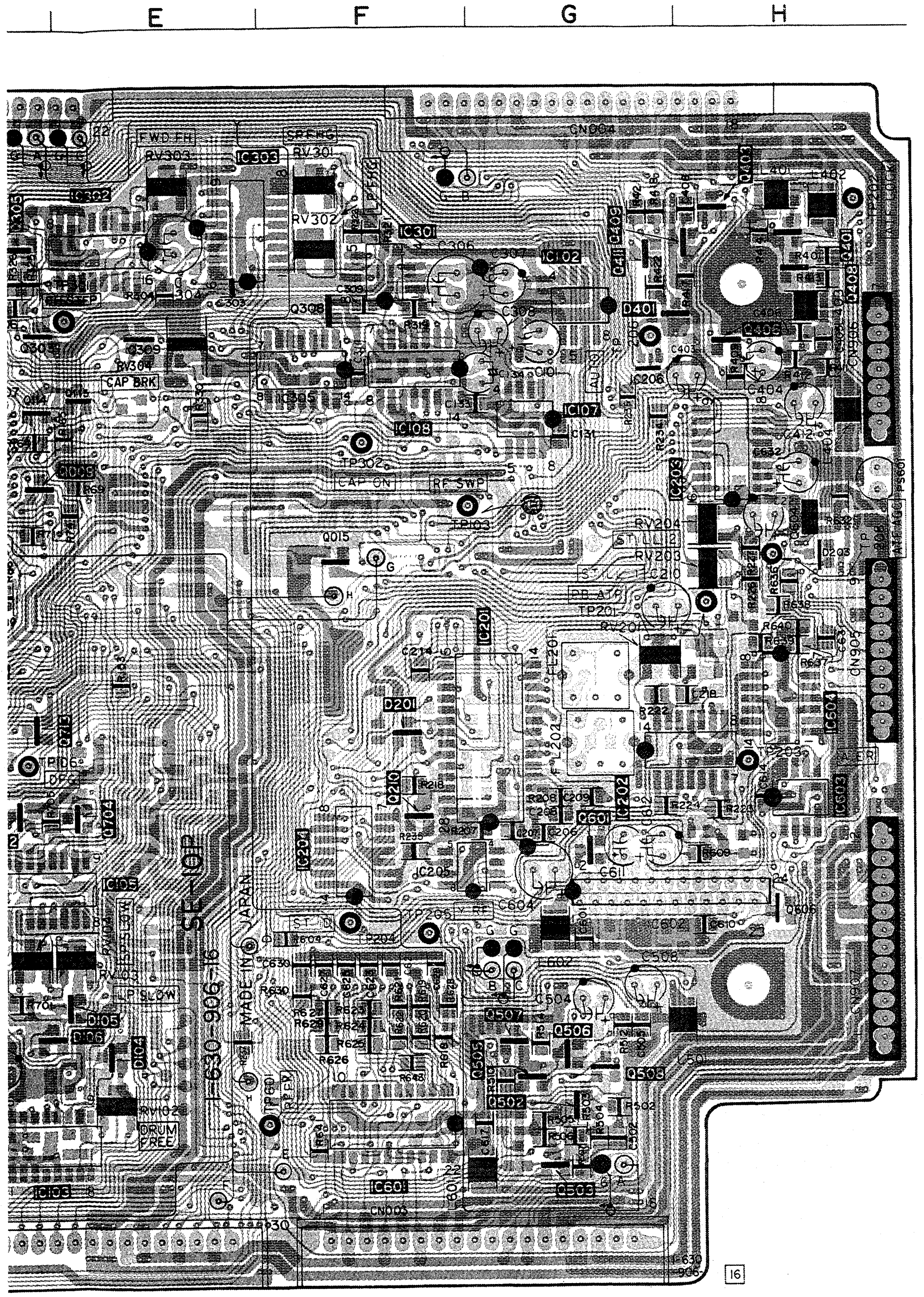
— Ref. No. SE-10P BOARD: 5000 series, IG-4 BOARD: 6000 series —

| SE-10P BOARD (COMPONENT SIDE) | |
|---|---|
| D003 | B-5 |
| D004 | B-6 |
| D005 | B-6 |
| D006 | D-2 |
| D007 | D-4 |
| D012 | C-4 |
| D013 | D-3 |
| D016 | A-2 |
| D101 | D-6 |
| D102 | D-5 |
| D103 | D-5 |
| D104 | E-5 |
| D105 | E-5 |
| D106 | E-5 |
| D201 | F-4 |
| D401 | G-2 |
| IC001 | B-2 |
| IC002 | D-3 |
| IC003 | A-5 |
| IC101 | C-5 |
| IC102 | G-2 |
| IC103 | D-6 |
| IC104 | C-6 |
| IC105 | E-5 |
| IC106 | C-4 |
| IC107 | G-2 |
| IC108 | F-2 |
| IC201 | G-4 |
| IC202 | G-4 |
| IC203 | H-3 |
| IC204 | F-4 |
| IC205 | F-4 |
| IC301 | F-2 |
| IC302 | E-2 |
| IC303 | E-1 |
| IC305 | E-3 |
| IC601 | F-6 |
| IC602 | G-5 |
| IC603 | H-4 |
| IC604 | H-4 |
| Q003 | B-4 |
| Q004 | B-4 |
| Q007 | D-2 |
| Q009 | E-3 |
| Q010 | D-4 |
| Q011 | C-3 |
| Q015 | F-3 |
| Q018 | C-2 |
| Q114 | D-2 |
| Q210 | F-4 |
| Q303 | E-2 |
| Q305 | D-2 |
| Q306 | D-2 |
| Q308 | F-2 |
| Q309 | E-2 |
| Q401 | H-2 |
| Q403 | H-1 |
| Q406 | H-2 |
| Q408 | H-2 |
| Q409 | G-2 |
| Q411 | G-2 |
| Q502 | G-6 |
| Q503 | G-6 |
| Q505 | G-5 |
| Q506 | G-5 |
| Q507 | G-5 |
| Q508 | G-5 |
| Q601 | G-4 |
| Q604 | H-3 |
| Q606 | H-5 |
| Q702 | D-4 |
| Q704 | E-4 |
| Q713 | E-4 |

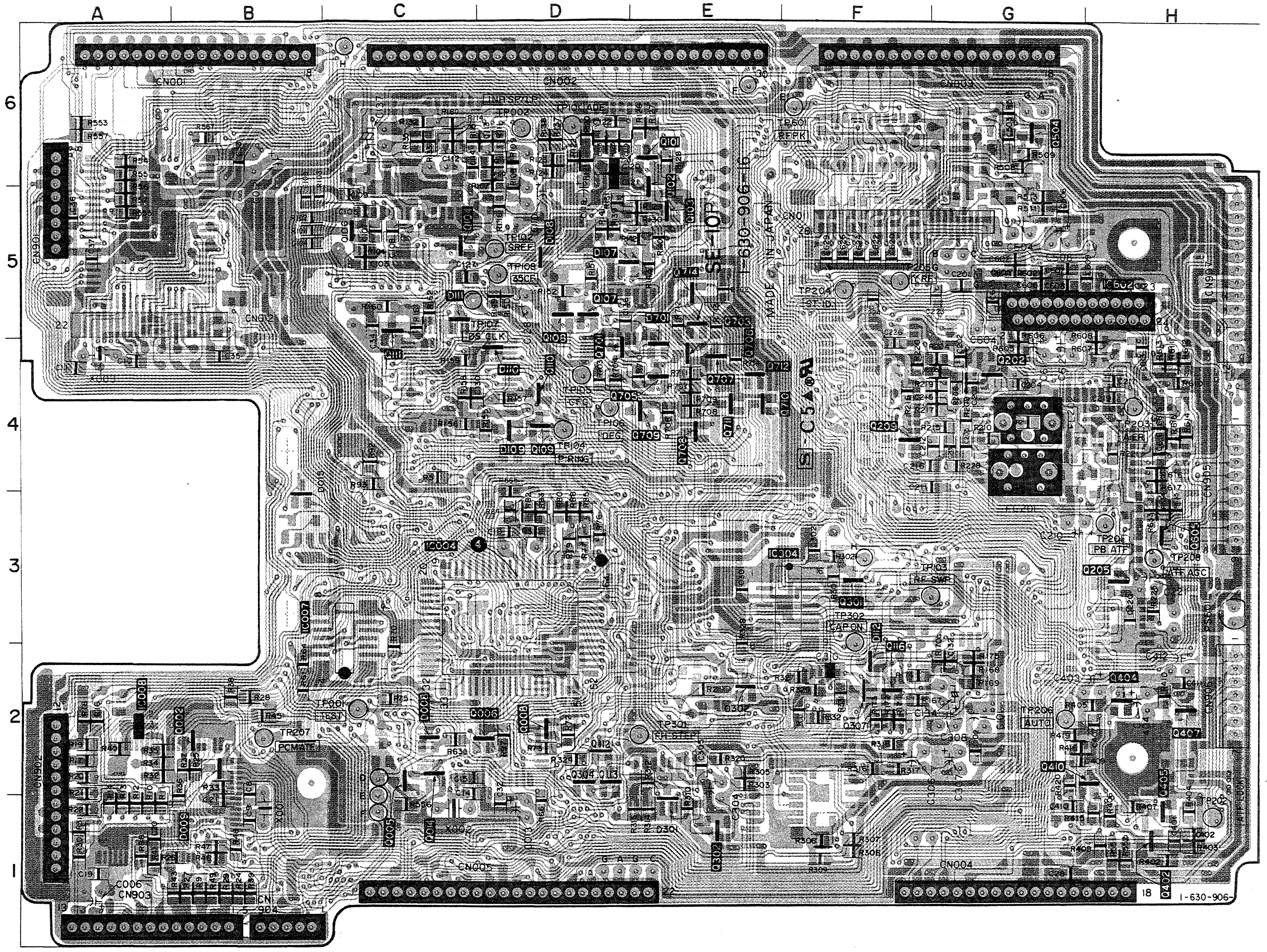
| SE-10P BOARD (CONDUCTOR SIDE) | |
|---|---|
| D008 | C-2 |
| D009 | B-1 |
| D015 | B-4 |
| D107 | D-5 |
| D108 | D-5 |
| D109 | D-4 |
| D110 | D-4 |
| D111 | C-5 |
| D112 | F-3 |
| D203 | H-3 |
| D301 | E-1 |
| D302 | E-2 |
| D701 | E-5 |
| IC004 | C-3 |
| IC007 | C-3 |
| IC008 | A-2 |
| IC304 | F-3 |
| Q002 | B-2 |
| Q005 | C-1 |
| Q006 | D-2 |
| Q008 | D-2 |
| Q014 | C-1 |
| Q101 | E-6 |
| Q102 | E-5 |
| Q103 | E-5 |
| Q104 | C-5 |
| Q106 | B-5 |
| Q107 | D-5 |
| Q108 | D-5 |
| Q109 | D-4 |
| Q110 | D-4 |
| Q111 | C-4 |
| Q112 | D-2 |
| Q113 | D-1 |
| Q115 | E-2 |
| Q116 | F-2 |
| Q202 | G-4 |
| Q205 | H-3 |
| Q209 | F-4 |
| Q301 | F-3 |
| Q302 | E-1 |
| Q304 | D-2 |
| Q307 | F-2 |
| Q402 | H-1 |
| Q404 | H-2 |
| Q405 | H-1 |
| Q407 | H-2 |
| Q410 | G-2 |
| Q504 | G-6 |
| Q605 | H-3 |
| Q701 | D-4 |
| Q703 | E-5 |
| Q705 | E-4 |
| Q706 | E-4 |
| Q707 | E-4 |
| Q708 | E-4 |
| Q709 | E-4 |
| Q710 | E-4 |
| Q711 | E-4 |
| Q712 | E-4 |
| Q714 | E-5 |

**SE-10P** BOARD (COMPONENT SIDE)

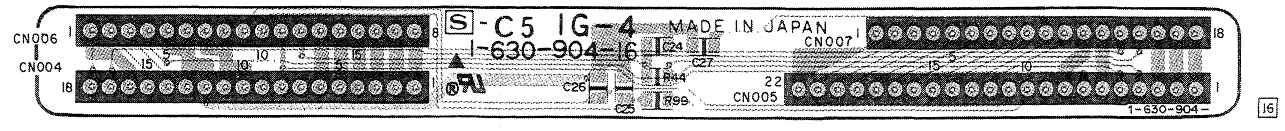



E
F
G
H
SE-10P
1-630-906-16
MADE IN JAPAN
16

**SE-10P** BOARD (COMPONENT SIDE)

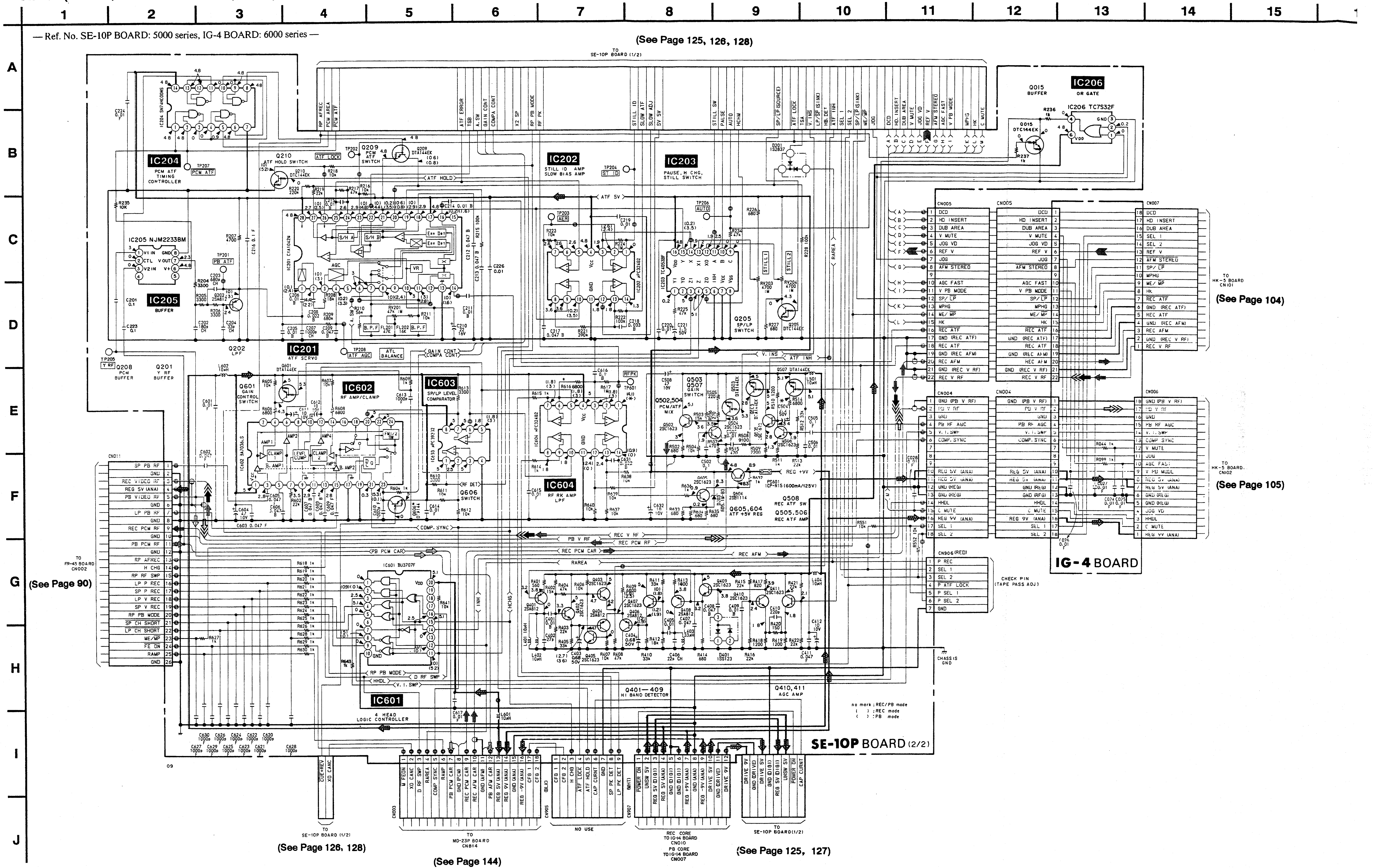

A
B
C
D
E
F
G
H
6
5
4
3
2
1
SE-10P
1-630-906-16
MADE IN JAPAN
CN001
CN002
CN003
CN004
CN005
16

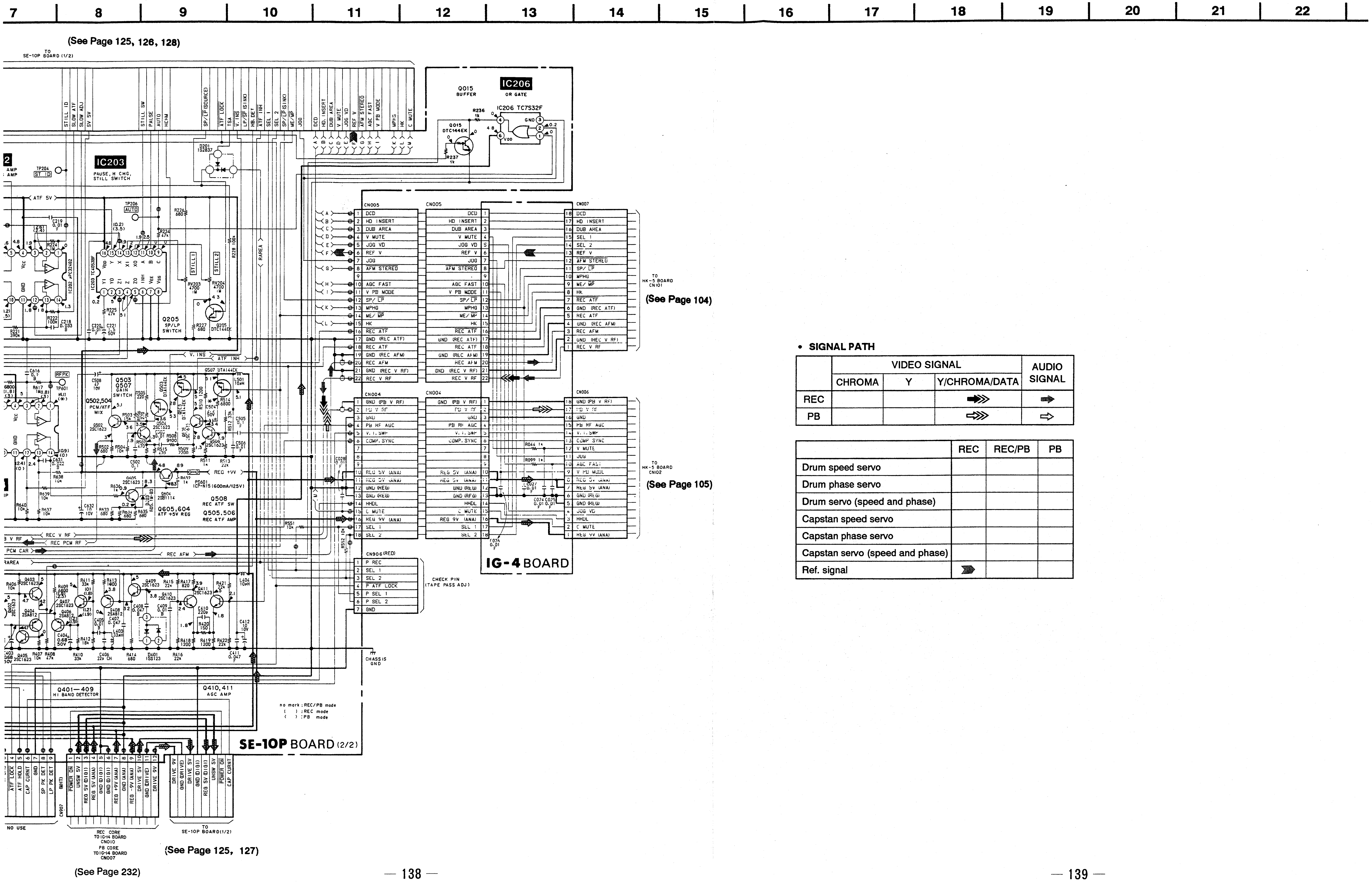
**IG-4** BOARD (COMPONENT SIDE)


S -C5 IG-4
MADE IN JAPAN
1-630-904-16
CN006
CN004
CN007
CN005
16

## SE-10P (SERVO, SYSTEM CONTROL), IG-4 (BOARD LINK) SCHEMATIC DIAGRAMS

— Ref. No. SE-10P BOARD: 5000 series, IG-4 BOARD: 6000 series —


(See Page 125, 126, 128)
TO SE-10P BOARD (1/2)
IC204
PCM ATF TIMING CONTROLLER
IC205 NJM2233BM
IC205
BUFFER
IC201
ATF SERVO
IC202
STILL ID AMP SLOW BIAS AMP
IC203
PAUSE, H CHG, STILL SWITCH
IC206
OR GATE
IC206 TC7S32F
Q015 BUFFER
Q210 ATF HOLD SWITCH
Q209 PCM ATF SWITCH
Q205 SP/LP SWITCH
Q202 LPF
Q208 PCM BUFFER
Q201 Y RF BUFFER
Q601 GAIN CONTROL SWITCH
IC602
RF AMP/CLAMP
IC603
SP/LP LEVEL COMPARATOR
Q606 SWITCH
IC604
RF RK AMP LPF
Q503 Q507 GAIN SWITCH
Q502,504 PCM/ATF MIX
Q508 REC ATF SW
Q505,506 REC ATF AMP
Q605,604 ATF +5V REG
IC601 BU3707F
IC601
4 HEAD LOGIC CONTROLLER
Q401 – 409 HI BAND DETECTOR
Q410,411 AGC AMP
TO FR-45 BOARD CN002
(See Page 90)
TO HK-5 BOARD CN101
(See Page 104)
TO HK-5 BOARD CN102
(See Page 105)
CHECK PIN (TAPE PASS ADJ)
CHASSIS GND
IG-4 BOARD
SE-10P BOARD (2/2)
no mark : REC/PB mode
( ) : REC mode
〈 〉 : PB mode
TO SE-10P BOARD (1/2)
(See Page 126, 128)
TO MD-23P BOARD CN814
(See Page 144)
NO USE
REC CORE TO IG-14 BOARD CN010
PB CORE TO IG-14 BOARD CN007
(See Page 232)
TO SE-10P BOARD (1/2)
(See Page 125, 127)

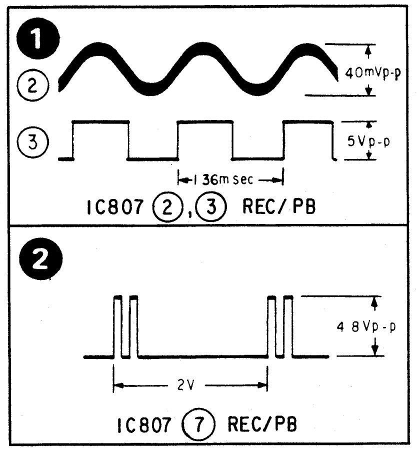

7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
(See Page 125, 126, 128)
TO SE-10P BOARD (1/2)
IC206
Q015 BUFFER
OR GATE
IC206 TC7S32F
Q015 DTC144EK
IC203
PAUSE, H CHG, STILL SWITCH
IC202 μPC324G2
Q205 SP/LP SWITCH
Q502,504 PCM/ATF MIX
Q503 Q507 GAIN SWITCH
Q508 REC ATF SW
Q605,604 ATF +5V REG
Q505,506 REC ATF AMP
PS601 ICP-N15 (600mA/125V)
CN005
CN004
CN006
CN007
CN906 (RED)
CHECK PIN (TAPE PASS ADJ)
TO HK-5 BOARD CN101
(See Page 104)
TO HK-5 BOARD CN102
(See Page 105)
IG-4 BOARD
CHASSIS GND
Q401—409 HI BAND DETECTOR
Q410,411 AGC AMP
no mark : REC/PB mode
( ) : REC mode
( ) : PB mode
SE-10P BOARD (2/2)
NO USE
REC CORE TO IG-14 BOARD CN010
PB CORE TO IG-14 BOARD CN007
(See Page 232)
TO SE-10P BOARD (1/2)
(See Page 125, 127)

- **SIGNAL PATH**

| | VIDEO SIGNAL | | | AUDIO SIGNAL |
|---|---|---|---|---|
| | CHROMA | Y | Y/CHROMA/DATA | |
| REC | | | ➡≫ | ➡ |
| PB | | | ⇨≫ | ⇨ |

| | REC | REC/PB | PB |
|---|---|---|---|
| Drum speed servo | | | |
| Drum phase servo | | | |
| Drum servo (speed and phase) | | | |
| Capstan speed servo | | | |
| Capstan phase servo | | | |
| Capstan servo (speed and phase) | | | |
| Ref. signal | ➤ | | |

## **MD-23P** BOARD



* A-7062-168-A MD-23 (P) BOARD, COMPLETE
************************
(Ref.No 1,000 Series)

< DIODE >

| | | | |
|---|---|---|---|
| D803 | 8-719-200-27 | DIODE | E10DS2 |
| D810 | 8-719-400-18 | DIODE | MA152WK |
| D811 | 8-719-200-27 | DIODE | E10DS2 |
| D901 | 8-719-400-18 | DIODE | MA152WK |
| D902 | 8-719-400-18 | DIODE | MA152WK |
| D903 | 8-719-400-18 | DIODE | MA152WK |
| D904 | 8-719-800-76 | DIODE | 1SS226 |
| D905 | 8-719-400-18 | DIODE | MA152WK |

< IC >

| | | | |
|---|---|---|---|
| IC801 | 8-752-037-08 | IC | CXA1109M |
| IC802 | 8-759-802-79 | IC | LB1616M |
| IC804 | 8-759-981-82 | IC | RC3414M |
| IC805 | 8-759-100-93 | IC | uPC393G2 |
| IC806 | 8-759-207-00 | IC | TA7733F |
| IC807 | 8-759-107-68 | IC | CX20115A |
| IC808 | 8-759-700-62 | IC | NJM4562D |
| IC809 | 8-759-100-94 | IC | uPC358G2 |
| IC901 | 8-759-207-50 | IC | TA7745F |
| IC902 | 8-759-150-05 | IC | uPC324G2 |
| IC903 | 8-759-925-66 | IC | BA6303F |
| IC904 | 8-759-008-67 | IC | MC14066BF |

< TRANSISTOR >

| | | | |
|---|---|---|---|
| Q806 | 8-729-111-14 | TRANSISTOR | 2SA1385 |
| Q807 | 8-729-901-06 | TRANSISTOR | DTA144EK |
| Q809 | 8-729-111-95 | TRANSISTOR | 2SC3518 |
| Q810 | 8-729-805-25 | TRANSISTOR | 2SB1121 |
| Q811 | 8-729-805-25 | TRANSISTOR | 2SB1121 |
| Q812 | 8-729-111-14 | TRANSISTOR | 2SA1385 |
| Q813 | 8-729-100-66 | TRANSISTOR | 2SC1623 |
| Q820 | 8-729-111-95 | TRANSISTOR | 2SC3518 |
| Q821 | 8-729-100-66 | TRANSISTOR | 2SC1623 |
| Q880 | 8-729-100-66 | TRANSISTOR | 2SC1623 |
| Q901 | 8-729-920-82 | TRANSISTOR | 2SB1188 |
| Q902 | 8-729-920-82 | TRANSISTOR | 2SB1188 |
| Q903 | 8-729-920-82 | TRANSISTOR | 2SB1188 |
| Q904 | 8-729-901-06 | TRANSISTOR | DTA144EK |
| Q905 | 8-729-901-06 | TRANSISTOR | DTA144EK |
| Q906 | 8-729-901-01 | TRANSISTOR | DTC144EK |
| Q907 | 8-729-901-01 | TRANSISTOR | DTC144EK |
| Q908 | 8-729-901-01 | TRANSISTOR | DTC144EK |
| Q909 | 8-729-901-06 | TRANSISTOR | DTA144EK |
| Q950 | 8-729-903-97 | TRANSISTOR | FMS1FE |
| Q990 | 8-729-100-66 | TRANSISTOR | 2SC1623 |

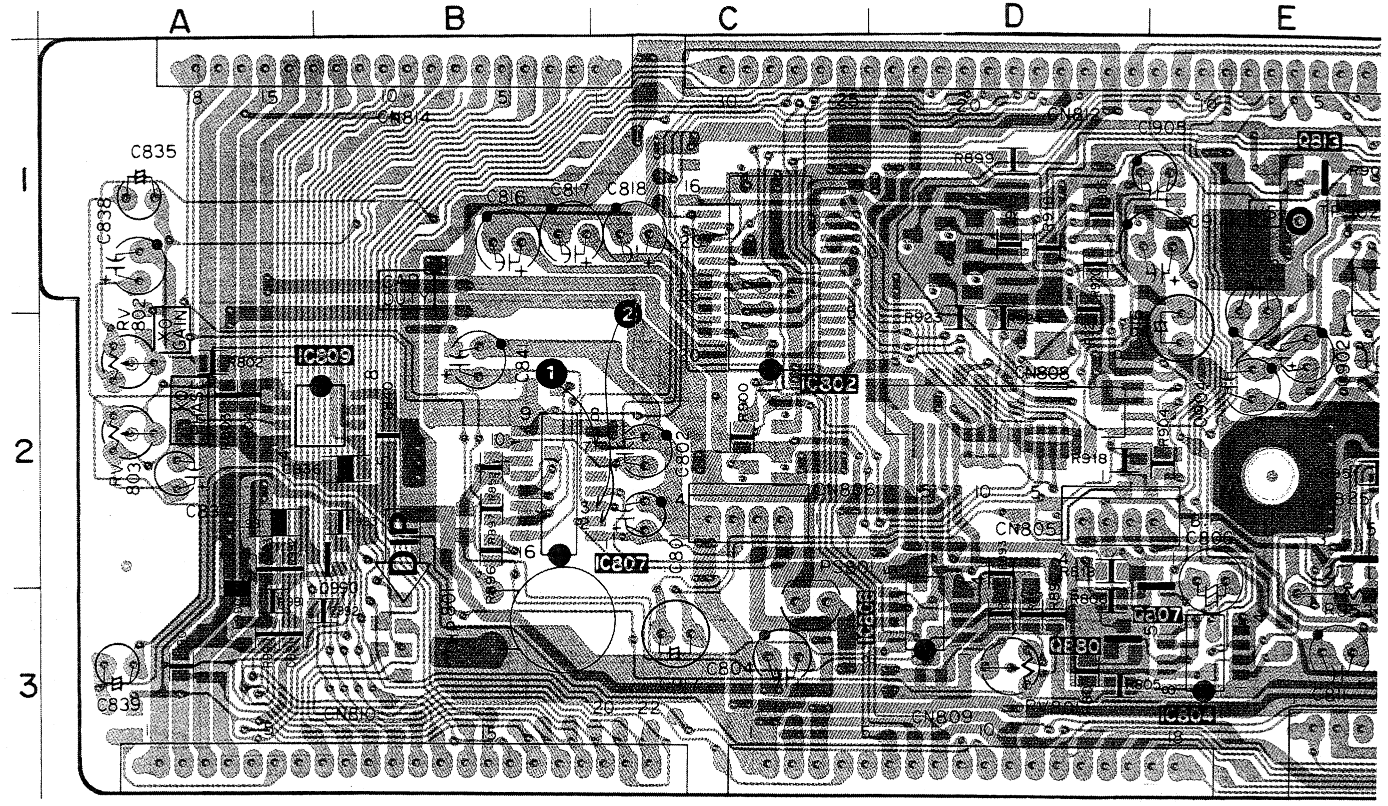
## MD-23P (DRUM, REEL, CAPSTAN, CASECOM MOTOR DRIVE), TS-74 (L) (TAPE END SENSOR), TS-74 (R) (TAPE TOP SENSOR

— Ref. No. MD-23P BOARD, TS-74(L) BOARD: 1000 series, TS-74(R) BOARD: 2000 series —

MD-23P BOARD (COMPONENT SIDE)

| | |
|---|---|
| D810 | F-3 |
| D811 | F-3 |
| IC801 | F-2 |
| IC802 | C-2 |
| IC804 | E-3 |
| IC805 | G-3 |
| IC807 | B-2 |
| IC808 | D-3 |
| IC809 | A-2 |
| Q807 | E-3 |
| Q810 | G-2 |
| Q811 | G-2 |
| Q813 | E-1 |
| Q880 | D-3 |
| Q904 | F-1 |
| Q905 | G-1 |
| Q950 | E-2 |
| Q990 | B-2 |

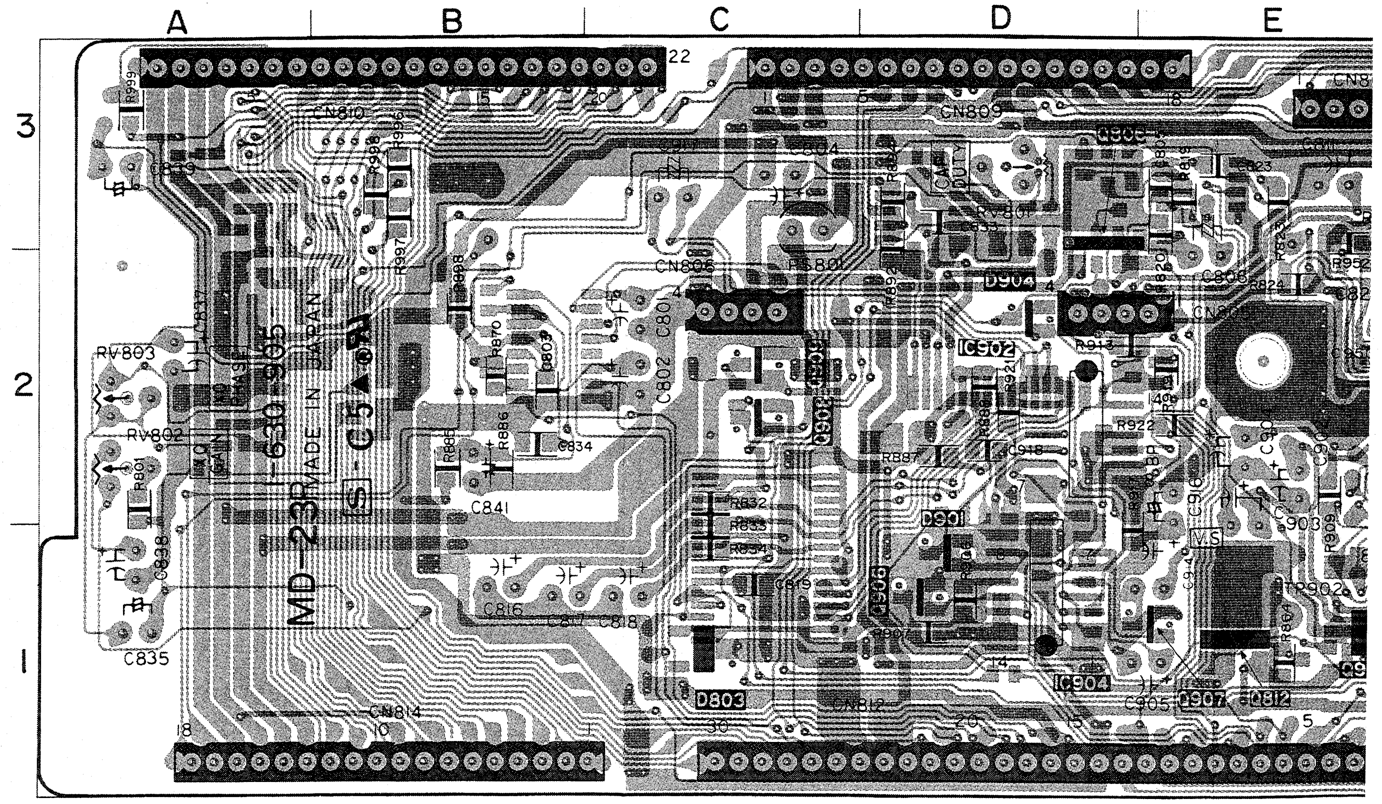
### **MD-23P** BOARD (COMPONENT SIDE)


A
B
C
D
E
1
2
3
C835
C838
C839
C816
C817
C818
IC809
IC807
IC802
IC804
CN814
CN805
CN808
CN809
CN810
Q880
Q807
Q990
DIP
❶
❷

MD-23P BOARD (COMPONENT SIDE)

| | |
|---|---|
| D803 | C-1 |
| D901 | D-1 |
| D902 | F-1 |
| D903 | F-1 |
| D904 | D-2 |
| D905 | G-1 |
| IC806 | G-2 |
| IC901 | F-2 |
| IC902 | D-2 |
| IC903 | F-1 |
| IC904 | D-1 |
| Q806 | D-3 |
| Q809 | F-3 |
| Q812 | E-1 |
| Q820 | G-2 |
| Q821 | F-2 |
| Q901 | E-1 |
| Q902 | F-1 |
| Q903 | F-1 |
| Q906 | D-1 |
| Q907 | E-1 |
| Q908 | C-2 |
| Q909 | C-2 |

### **MD-23P** BOARD (CONDUCTOR SIDE)


A
B
C
D
E
3
2
1
22
CN810
CN809
CN814
CN812
RV803
RV802
C835
C838
C816
C817
C818
C841
D803
D901
D904
IC902
IC904
Q907
Q812
MD-23P
MADE IN JAPAN
1-630-905

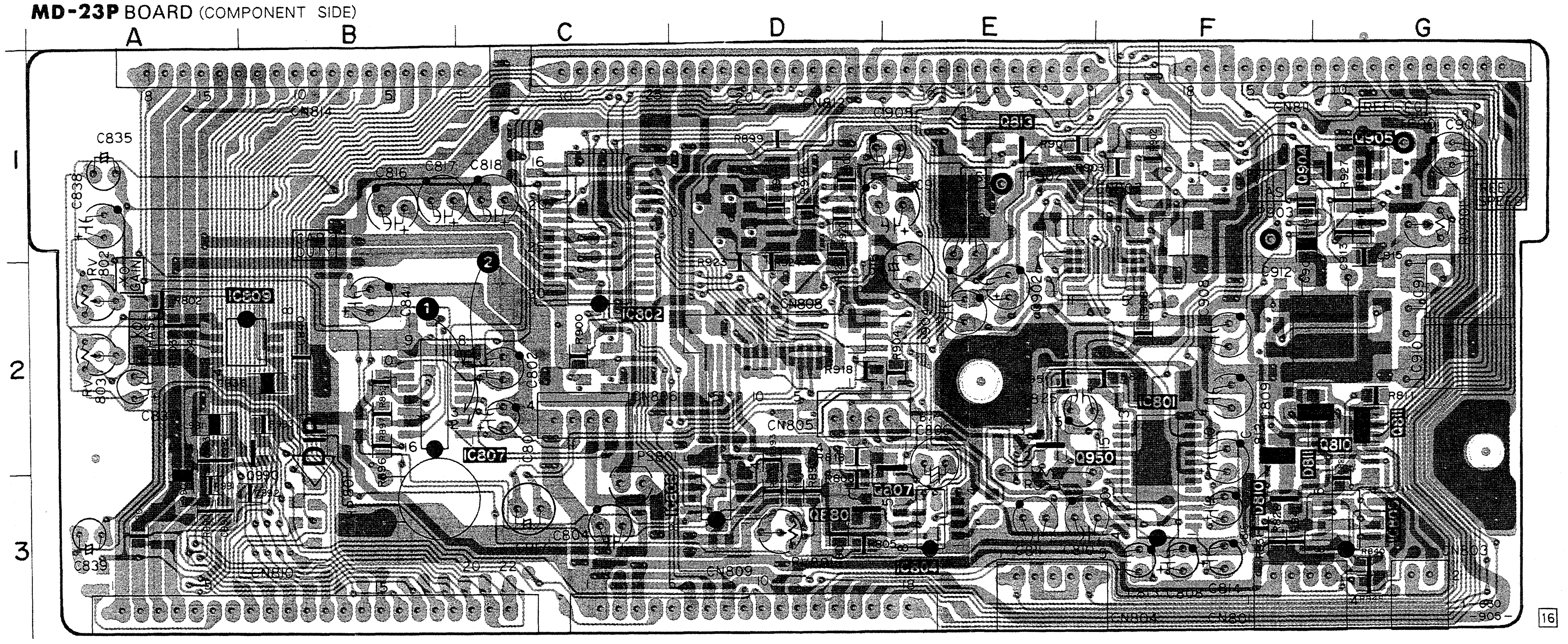
## MD-23P (DRUM, REEL, CAPSTAN, CASECOM MOTOR DRIVE), TS-74 (L) (TAPE END SENSOR), TS-74 (R) (TAPE TOP SENSOR) PRINTED WIRING BOARDS

— Ref. No. MD-23P BOARD, TS-74(L) BOARD: 1000 series, TS-74(R) BOARD: 2000 series —

MD-23P BOARD (COMPONENT SIDE)

| | |
|---|---|
| D810 | F-3 |
| D811 | F-3 |
| IC801 | F-2 |
| IC802 | C-2 |
| IC804 | E-3 |
| IC805 | G-3 |
| IC807 | B-2 |
| IC808 | D-3 |
| IC809 | A-2 |
| Q807 | E-3 |
| Q810 | G-2 |
| Q811 | G-2 |
| Q813 | E-1 |
| Q880 | D-3 |
| Q904 | F-1 |
| Q905 | G-1 |
| Q950 | E-2 |
| Q990 | B-2 |

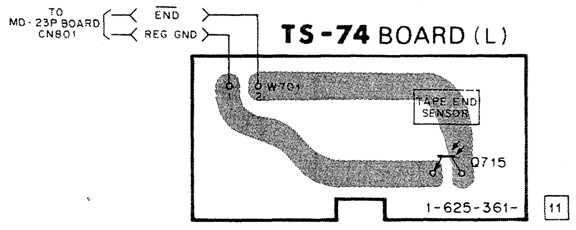
**MD-23P** BOARD (COMPONENT SIDE)



A
B
C
D
E
F
G
1
2
3
IC809
IC807
IC802
IC801
IC804
IC808
Q950
Q810
Q880
CN814
CN810
CN805
CN806
CN809
CN801
CN803
CN804
C835
C838
C839
C816
C817
C818
C804
C909
C814
Q813
Q905
Q904
RV802
RV803
1-630-905-
16

TO MD-23P BOARD CN801

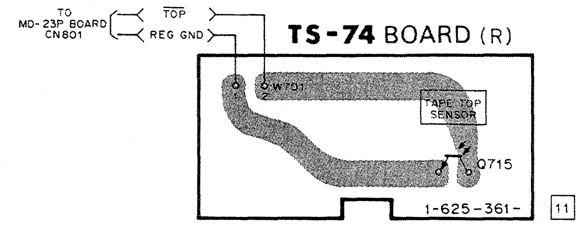
**TS-74** BOARD (L)



END
REG GND
W701
TAPE END SENSOR
Q715
1-625-361-
11

TO MD-23P BOARD CN801

**TS-74** BOARD (R)



TOP
REG GND
W701
TAPE TOP SENSOR
Q715
1-625-361-
11

A-7070-628-A TS-74 (LEFT) BOARD, COMPLETE
*****************************
(Ref.No 1,000 Series)

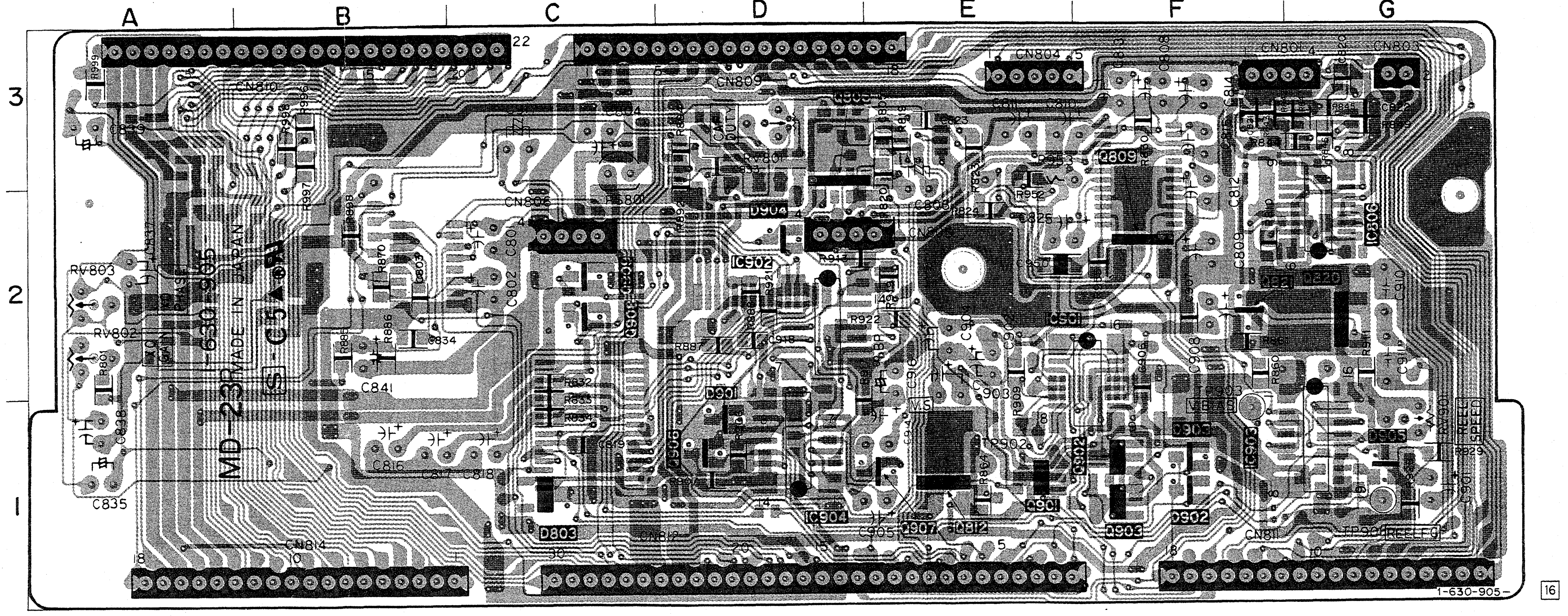
< TRANSISTOR >

| | | | |
|---|---|---|---|
| Q715 | 8-729-700-11 | TRANSISTOR | NJL7141E |

MD-23P BOARD (COMPONENT SIDE)

| | |
|---|---|
| D803 | C-1 |
| D901 | D-1 |
| D902 | F-1 |
| D903 | F-1 |
| D904 | D-2 |
| D905 | G-1 |
| IC806 | G-2 |
| IC901 | F-2 |
| IC902 | D-2 |
| IC903 | F-1 |
| IC904 | D-1 |
| Q806 | D-3 |
| Q809 | F-3 |
| Q812 | E-1 |
| Q820 | G-2 |
| Q821 | F-2 |
| Q901 | E-1 |
| Q902 | F-1 |
| Q903 | F-1 |
| Q906 | D-1 |
| Q907 | E-1 |
| Q908 | C-2 |
| Q909 | C-2 |

**MD-23P** BOARD (CONDUCTOR SIDE)



A
B
C
D
E
F
G
3
2
1
MD-23P
1-630-905
MADE IN JAPAN
IC806
IC901
IC902
IC903
IC904
Q809
Q905
Q906
Q907
Q908
Q909
Q901
D803
D901
D902
D903
D904
D905
CN804
CN801
CN803
CN810
CN809
CN808
CN811
CN812
CN814
RV802
RV803
C835
C838
C841
C816
C818
22
18
1-630-905-
16

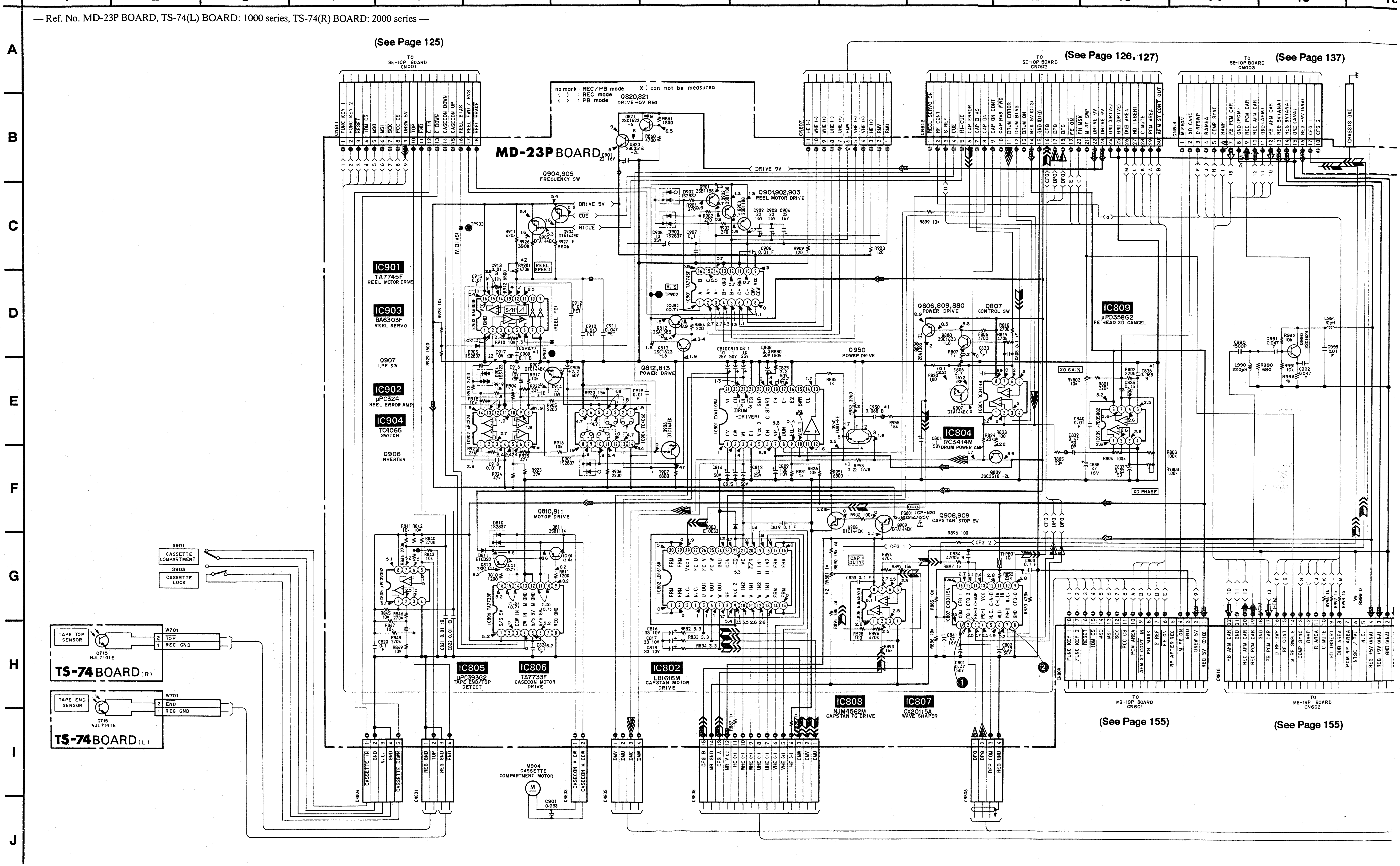
A-7070-627-A TS-74 (RIGHT) BOARD, COMPLETE
*****************************
(Ref.No 2,000 Series)

< TRANSISTOR >

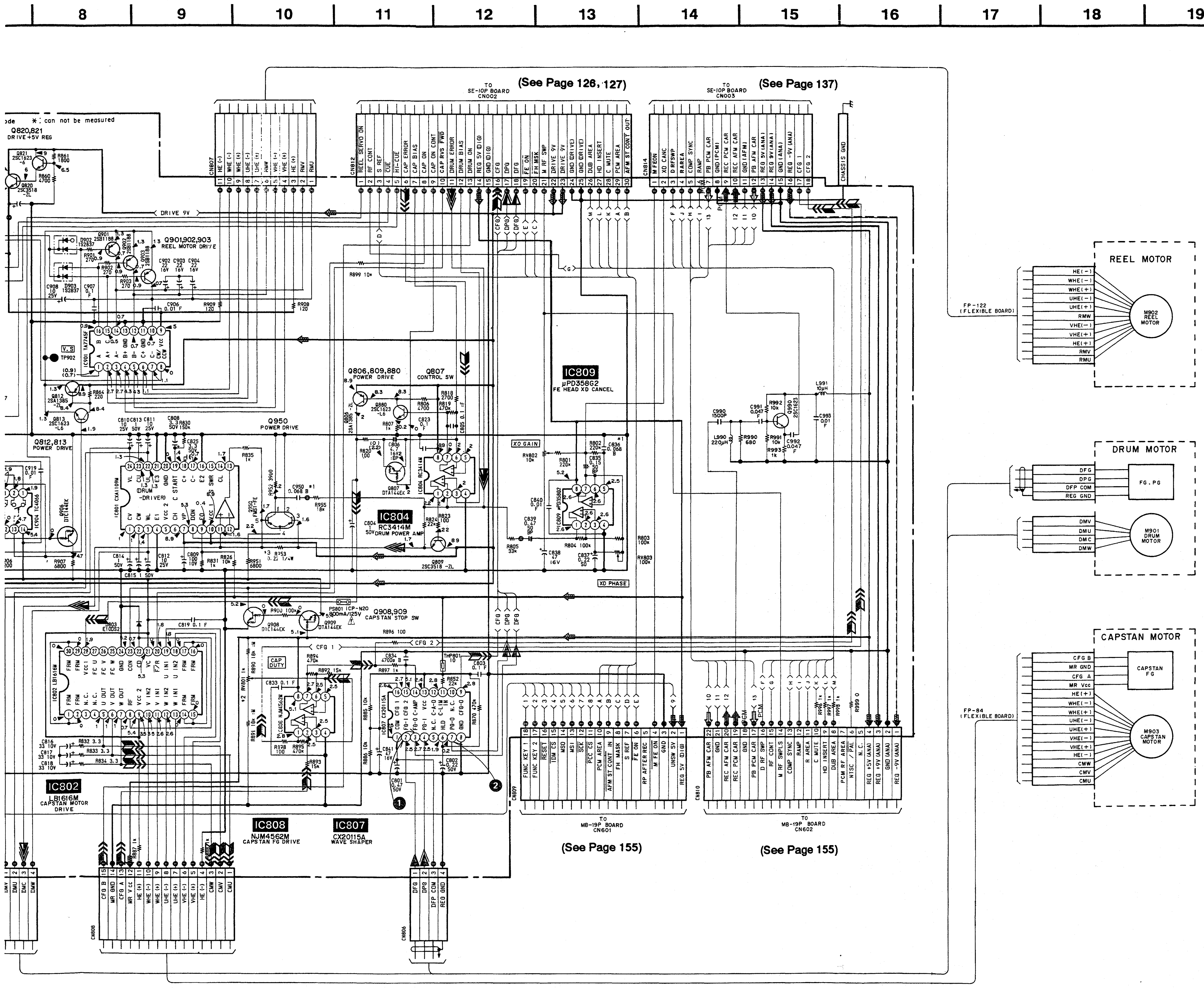
| | | | |
|---|---|---|---|
| Q715 | 8-729-700-11 | TRANSISTOR | NJL7141E |

## MD-23P (DRUM, REEL, CAPSTAN, CASECOM MOTOR DRIVE), TS-74 (L) (TAPE END SENSOR), TS-74 (R) (TAPE TOP SENSOR) SCHEMATIC DIAGRAMS

— Ref. No. MD-23P BOARD, TS-74(L) BOARD: 1000 series, TS-74(R) BOARD: 2000 series —


(See Page 125)
TO SE-IOP BOARD CN001
(See Page 126, 127)
TO SE-IOP BOARD CN002
(See Page 137)
TO SE-IOP BOARD CN003
MD-23P BOARD
no mark : REC/PB mode
( ) : REC mode
< > : PB mode
* : can not be measured
Q820,821 DRIVE +5V REG
Q904,905 FREQUENCY SW
Q901,902,903 REEL MOTOR DRIVE
DRIVE 9V
DRIVE 5V
CUE
HICUE
IC901 TA7745F REEL MOTOR DRIVE
IC903 BA6303F REEL SERVO
Q907 LPF SW
IC902 μPC324 REEL ERROR AMP
IC904 TC4066 SWITCH
Q906 INVERTER
Q812,813 POWER DRIVE
IC801 CXA1109M (DRUM -DRIVER)
Q950 POWER DRIVE
Q806,809,880 POWER DRIVE
Q807 CONTROL SW
IC804 RC3414M DRUM POWER AMP
IC809 μPD358G2 FE HEAD XD CANCEL
XD GAIN
XD PHASE
Q810,811 MOTOR DRIVE
Q908,909 CAPSTAN STOP SW
CAP DUTY
S901 CASSETTE COMPARTMENT
S903 CASSETTE LOCK
TAPE TOP SENSOR
TS-74 BOARD (R)
TAPE END SENSOR
TS-74 BOARD (L)
IC805 μPC393G2 TAPE END/TOP DETECT
IC806 TA7733F CASECON MOTOR DRIVE
IC802 LB1616M CAPSTAN MOTOR DRIVE
IC808 NJM4562M CAPSTAN FG DRIVE
IC807 CX20115A WAVE SHAPER
M904 CASSETTE COMPARTMENT MOTOR
TO MB-19P BOARD CN601
(See Page 155)
TO MB-19P BOARD CN602
(See Page 155)
CN804
CN801
CN805
CN803
CN808
CN806
CN809
CN810

## (R) (TAPE TOP SENSOR) SCHEMATIC DIAGRAMS


8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
✱ : can not be measured
Q820,821 DRIVE +5V REG
DRIVE 9V
Q901,902,903 REEL MOTOR DRIVE
TO SE-IOP BOARD CN002
(See Page 126, 127)
TO SE-IOP BOARD CN003
(See Page 137)
CHASSIS GND
Q806,809,880 POWER DRIVE
Q807 CONTROL SW
IC809 μPD358G2 FE HEAD XD CANCEL
Q812,813 POWER DRIVE
Q950 POWER DRIVE
XD GAIN
XD PHASE
IC804 RC3414M DRUM POWER AMP
Q908,909 CAPSTAN STOP SW
CAP DUTY
IC802 LB1616M CAPSTAN MOTOR DRIVE
IC808 NJM4562M CAPSTAN FG DRIVE
IC807 CX20115A WAVE SHAPER
TO MB-19P BOARD CN601
(See Page 155)
TO MB-19P BOARD CN602
(See Page 155)
REEL MOTOR
M902 REEL MOTOR
FP-122 (FLEXIBLE BOARD)
DRUM MOTOR
FG.PG
M901 DRUM MOTOR
CAPSTAN MOTOR
CAPSTAN FG
M903 CAPSTAN MOTOR
FP-84 (FLEXIBLE BOARD)

- **SIGNAL PATH**

| | VIDEO SIGNAL | | | AUDIO SIGNAL |
|---|---|---|---|---|
| | CHROMA | Y | Y/CHROMA/DATA | |
| REC | | | | ➡ |
| PB | | | | ⇨ |

| | REC | REC/PB | PB |
|---|---|---|---|
| Drum speed servo | | ▷ | |
| Drum phase servo | | ▷▷ | |
| Drum servo (speed and phase) | | ▷▷▷ | |
| Capstan speed servo | | | |
| Capstan phase servo | | | |
| Capstan servo (speed and phase) | | ▷››› | |
| Ref. signal | | | |

* A-7061-818-A RS-31 BOARD, COMPLETE
**********************
(Ref. No 6, 000 Series)

< DIODE >

| | | | |
|---|---|---|---|
| D320 | 8-719-800-76 | DIODE | 1SS226 |
| D321 | 8-719-800-76 | DIODE | 1SS226 |

< IC >

| | | | |
|---|---|---|---|
| IC301 | 8-759-908-81 | IC | MB3763PF |
| IC302 | 8-759-908-81 | IC | MB3763PF |

< TRANSISTOR >

| | | | |
|---|---|---|---|
| Q301 | 8-729-805-25 | TRANSISTOR | 2SB1121 |
| Q302 | 8-729-216-22 | TRANSISTOR | 2SA1162 |
| Q303 | 8-729-216-22 | TRANSISTOR | 2SA1162 |
| Q304 | 8-729-216-22 | TRANSISTOR | 2SA1162 |
| Q305 | 8-729-901-01 | TRANSISTOR | DTC144EK |
| Q306 | 8-729-901-01 | TRANSISTOR | DTC144EK |
| Q307 | 8-729-901-01 | TRANSISTOR | DTC144EK |

## RS-31 (LOADING MOTOR DRIVE, RELL SENSOR), LD-1 (TAPE SENSOR), MS-4 (CONTROL MOTOR, MODE SWITCH), LS-9 (TAPE LOADING SWITCH) PRINT

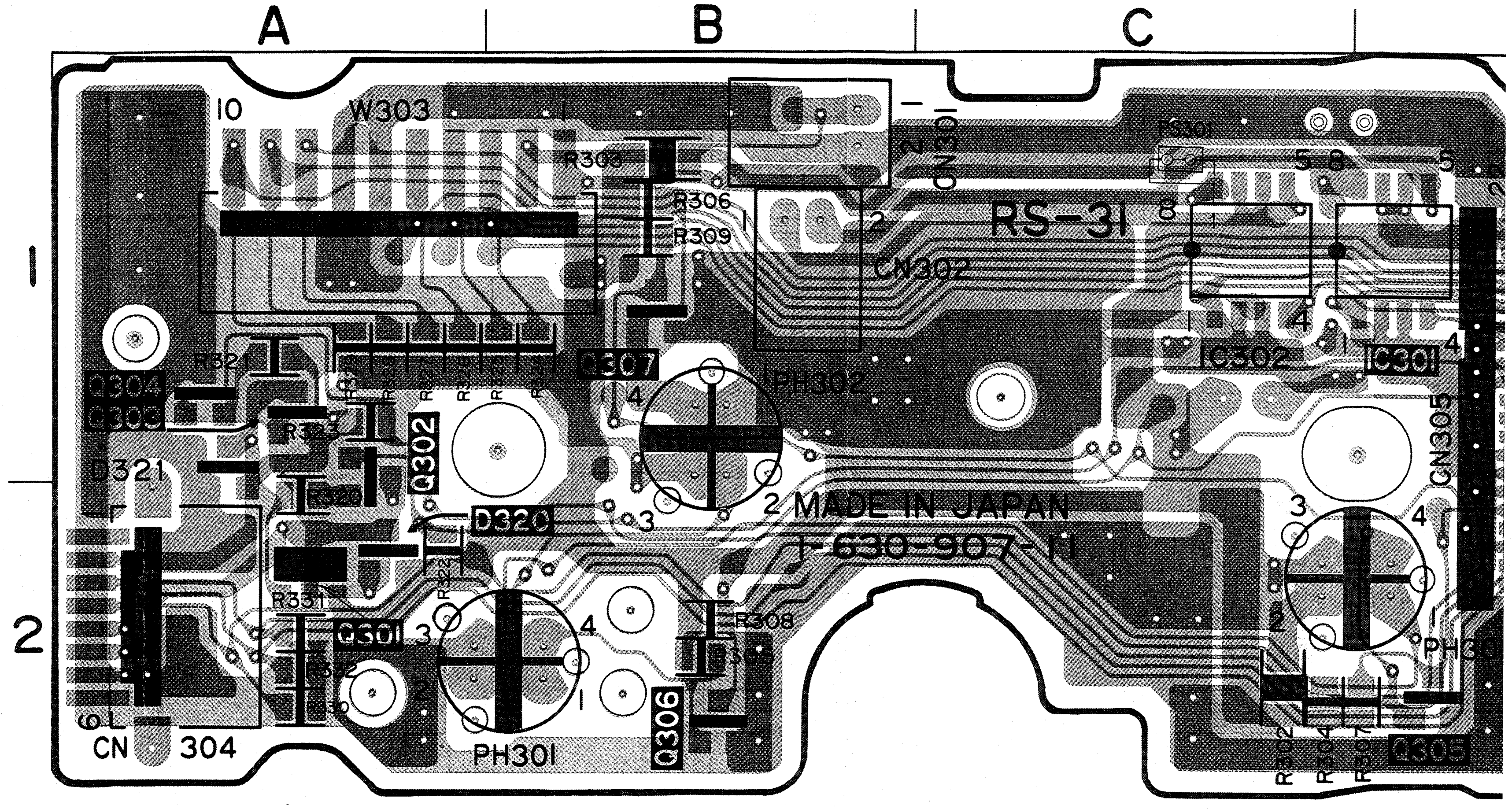
— Ref. No. RS-31 BOARD, LD-1 BOARD: 6000 series, MS-4 BOARD, LS-9 BOARD: 8000 series —

MS-4, LS-9 boards is replaced as a block, so that the PRINTED WIRING BOARD of it is omitted.

RS-31 BOARD
(COMPONENT
SIDE)

| | |
|---|---|
| D320 | B-2 |
| D321 | A-1 |
| IC301 | D-1 |
| IC302 | C-1 |
| Q301 | A-2 |
| Q302 | A-1 |
| Q303 | A-1 |
| Q304 | A-1 |
| Q305 | D-2 |
| Q306 | B-2 |
| Q307 | B-1 |

### RS-31 BOARD (COMPONENT SIDE)

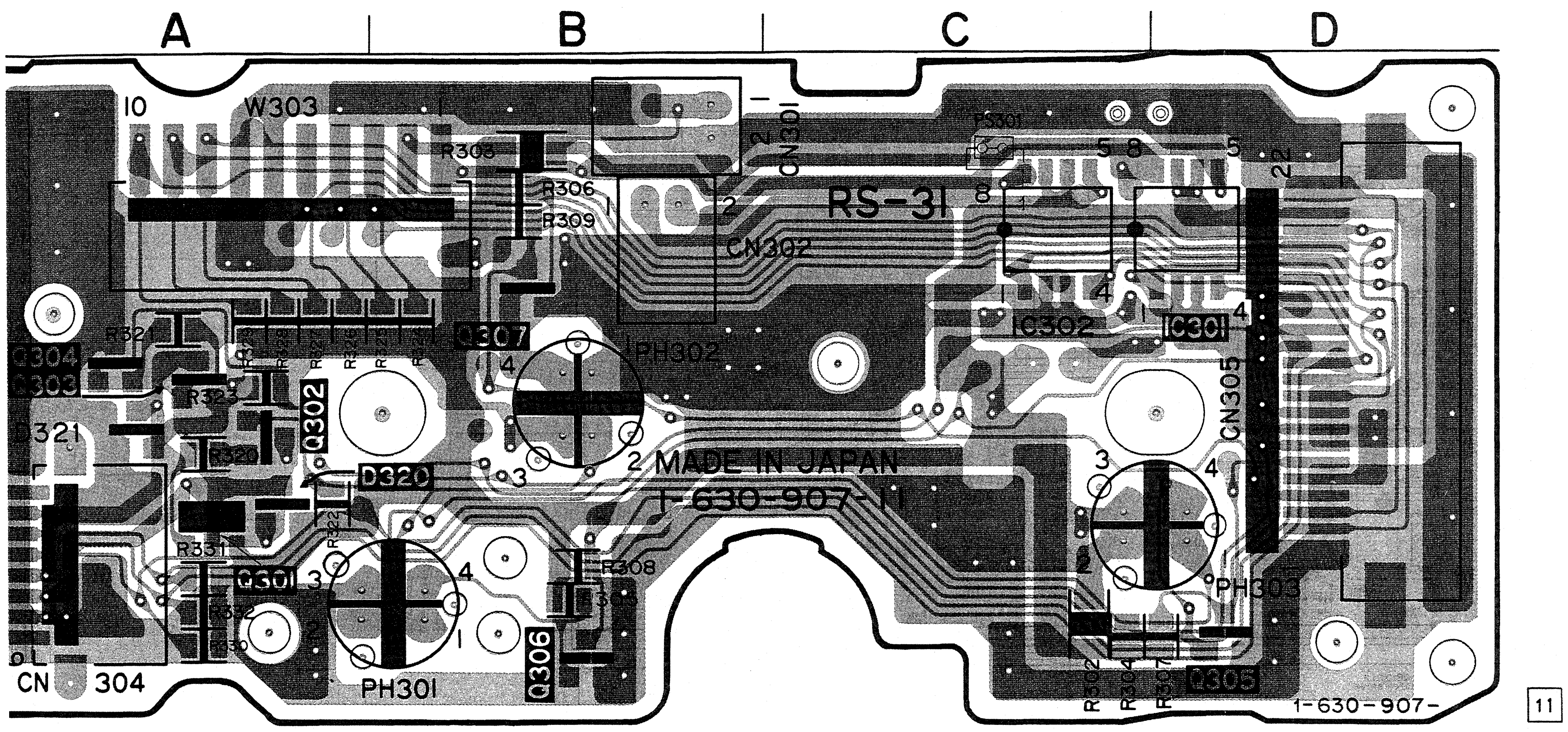

A
B
C
1
2
10
W303
R303
R306
R309
CN301
CN302
PS301
RS-31
8
5
IC302
IC301
CN305
R321
Q304
Q303
D321
R323
R320
Q302
Q307
PH302
D320
MADE IN JAPAN
1-630-907-11
R331
Q301
R332
R330
PH301
R308
Q306
CN 304
3
4
PH30
Q305
R302
R304

## OR DRIVE, RELL SENSOR), LD-1 (TAPE SENSOR), MS-4 (CONTROL MOTOR, MODE SWITCH), LS-9 (TAPE LOADING SWITCH) PRINTED WIRING BOARDS

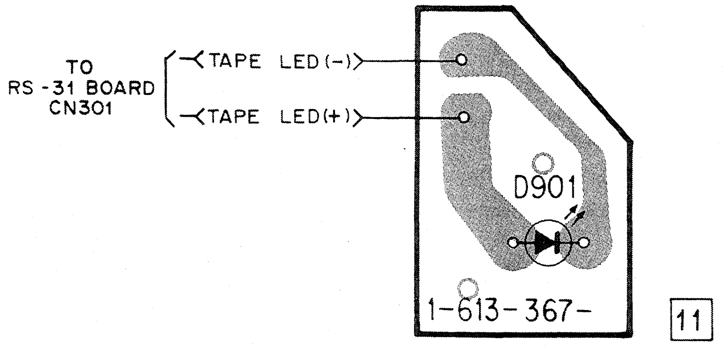
-1 BOARD: 6000 series, MS-4 BOARD, LS-9 BOARD: 8000 series —

ed as a block, so that the PRINTED WIRING BOARD of it is omitted.

### S-31 BOARD (COMPONENT SIDE)


A
B
C
D
10
W303
R303
R306
R309
CN301
1
2
CN302
RS-31
FS301
5
8
22
IC302
IC301
CN305
PH302
Q307
R321
Q304
Q303
D321
R323
Q302
R320
D320
R322
R331
Q301
R332
R330
PH301
Q306
R308
MADE IN JAPAN
1-630-907-11
PH303
R302
R304
R307
Q305
CN 304
1-630-907-
11

### LD-1 BOARD (CONDUCTOR SIDE)


TO
RS-31 BOARD
CN301
TAPE LED(-)
TAPE LED(+)
D901
1-613-367-
11

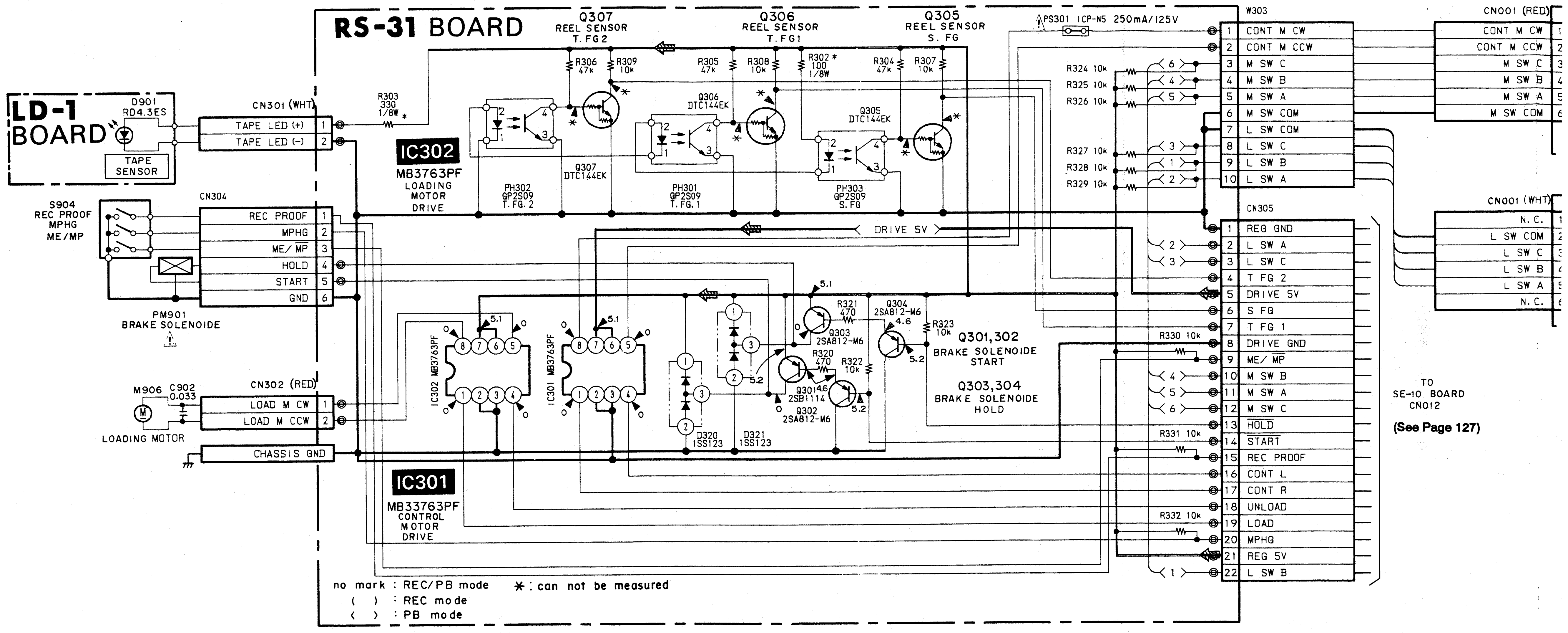
* A-7070-024-A LD-1 BOARD, COMPLETE
*********************
(Ref. No 6,000 Series)

< DIODE >

D901 8-719-928-54 DIODE GL-450S

## RS-31 (LOADING MOTOR DRIVE, RELL SENSOR), LD-1 (TAPE SENSOR), MS-4 (CONTROL MOTOR, MODE SWITCH), LS-9 (TAPE LOADING SWITCH) SCHEMATIC DIAGRAMS

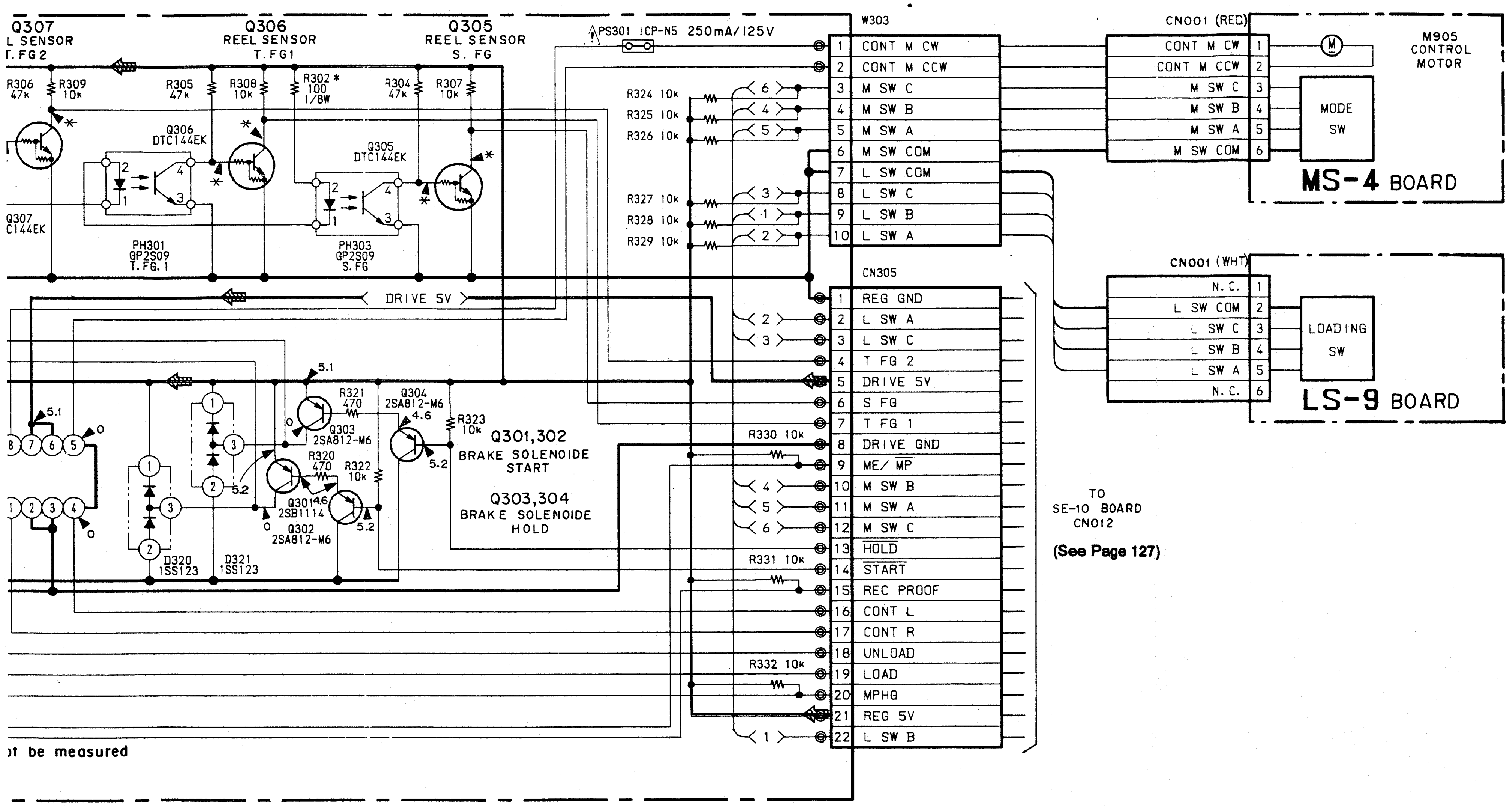
— Ref. No. RS-31 BOARD, LD-1 BOARD: 6000 series, MS-4 BOARD, LS-9 BOARD: 8000 series —


RS-31 BOARD
LD-1 BOARD
D901 RD4.3ES
TAPE SENSOR
CN301 (WHT)
TAPE LED (+)
TAPE LED (−)
S904 REC PROOF MPHG ME/MP
CN304
REC PROOF
MPHG
ME/MP
HOLD
START
GND
PM901 BRAKE SOLENOIDE
M906
C902 0.033
LOADING MOTOR
CN302 (RED)
LOAD M CW
LOAD M CCW
CHASSIS GND
IC302 MB3763PF LOADING MOTOR DRIVE
IC301 MB33763PF CONTROL MOTOR DRIVE
R303 330 1/8W
Q307 REEL SENSOR T.FG2
Q306 REEL SENSOR T.FG1
Q305 REEL SENSOR S.FG
R306 47k
R309 10k
R305 47k
R308 10k
R302 100 1/8W
R304 47k
R307 10k
Q307 DTC144EK
Q306 DTC144EK
Q305 DTC144EK
PH302 GP2S09 T.FG.2
PH301 GP2S09 T.FG.1
PH303 GP2S09 S.FG
PS301 ICP-N5 250mA/125V
DRIVE 5V
5.1
R321 470
Q304 2SA812-M6
R323 10k
Q303 2SA812-M6
R320 470
R322 10k
Q301 2SB1114
Q302 2SA812-M6
4.6
5.2
D320 1SS123
D321 1SS123
Q301,302 BRAKE SOLENOIDE START
Q303,304 BRAKE SOLENOIDE HOLD
R324 10k
R325 10k
R326 10k
R327 10k
R328 10k
R329 10k
R330 10k
R331 10k
R332 10k
W303
1 CONT M CW
2 CONT M CCW
3 M SW C
4 M SW B
5 M SW A
6 M SW COM
7 L SW COM
8 L SW C
9 L SW B
10 L SW A
CN305
1 REG GND
2 L SW A
3 L SW C
4 T FG 2
5 DRIVE 5V
6 S FG
7 T FG 1
8 DRIVE GND
9 ME/MP
10 M SW B
11 M SW A
12 M SW C
13 HOLD
14 START
15 REC PROOF
16 CONT L
17 CONT R
18 UNLOAD
19 LOAD
20 MPHG
21 REG 5V
22 L SW B
CN001 (RED)
CONT M CW
CONT M CCW
M SW C
M SW B
M SW A
M SW COM
CN001 (WHT)
N.C.
L SW COM
L SW C
L SW B
L SW A
N.C.
TO SE-10 BOARD CN012
(See Page 127)

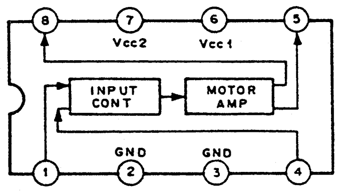
no mark : REC/PB mode
( ) : REC mode
〈 〉 : PB mode

✱ : can not be measured

## R, MODE SWITCH), LS-9 (TAPE LOADING SWITCH) SCHEMATIC DIAGRAMS


Q307
L SENSOR
T.FG2
Q306
REEL SENSOR
T.FG1
Q305
REEL SENSOR
S. FG
R306 47k
R309 10k
R305 47k
R308 10k
R302 * 100 1/8W
R304 47k
R307 10k
Q306 DTC144EK
Q305 DTC144EK
Q307 DTC144EK
PH301 GP2S09 T.FG.1
PH303 GP2S09 S.FG
PS301 ICP-N5 250mA/125V
DRIVE 5V
R324 10k
R325 10k
R326 10k
R327 10k
R328 10k
R329 10k
W303
1 CONT M CW
2 CONT M CCW
3 M SW C
4 M SW B
5 M SW A
6 M SW COM
7 L SW COM
8 L SW C
9 L SW B
10 L SW A
CN305
1 REG GND
2 L SW A
3 L SW C
4 T FG 2
5 DRIVE 5V
6 S FG
7 T FG 1
8 DRIVE GND
9 ME/MP
10 M SW B
11 M SW A
12 M SW C
13 HOLD
14 START
15 REC PROOF
16 CONT L
17 CONT R
18 UNLOAD
19 LOAD
20 MPHG
21 REG 5V
22 L SW B
R330 10k
R331 10k
R332 10k
R321 470
R320 470
R322 10k
R323 10k
Q304 2SA812-M6
Q303 2SA812-M6
Q301 2SB1114
Q302 2SA812-M6
D320 1SS123
D321 1SS123
5.1
4.6
5.2
Q301,302
BRAKE SOLENOIDE START
Q303,304
BRAKE SOLENOIDE HOLD
CN001 (RED)
CONT M CW 1
CONT M CCW 2
M SW C 3
M SW B 4
M SW A 5
M SW COM 6
M905 CONTROL MOTOR
MODE SW
MS-4 BOARD
CN001 (WHT)
N.C. 1
L SW COM 2
L SW C 3
L SW B 4
L SW A 5
N.C. 6
LOADING SW
LS-9 BOARD
TO SE-10 BOARD CN012
(See Page 127)
t be measured

IC301,IC302 (MB3763PF)


Vcc2
Vcc1
INPUT CONT
MOTOR AMP
GND
GND
1
2
3
4
5
6
7
8

## MB-19P (VTR FUNCTION SWITCH, AUDIO PROCESS) PRINTED WIRING BOARD

— Ref. No. MB-19P BOARD: 7000 series —

* A-7061-824-A MB-19 (P) BOARD, COMPLETE
**************************
(Ref. No 7,000 Series)

< DIODE >

| | | | |
|---|---|---|---|
| D601 | 8-719-104-34 | DIODE | 1S2835-T1 |
| D602 | 8-719-104-34 | DIODE | 1S2835-T1 |
| D603 | 8-719-104-34 | DIODE | 1S2835-T1 |
| D604 | 8-719-400-18 | DIODE | MA152WK |
| D641 | 8-719-800-76 | DIODE | 1SS226 |
| D642 | 8-719-800-76 | DIODE | 1SS226 |

< IC >

| | | | |
|---|---|---|---|
| IC004 | 8-752-322-57 | IC | CXD1077M |
| IC005 | 8-759-908-15 | IC | TL431CLP |
| IC601 | 8-759-149-34 | IC | uPD75106G-591-1B |
| IC603 | 8-759-300-71 | IC | TC4053BFHB-TP1 |
| IC651 | 8-759-603-27 | IC | M5201FP |
| IC661 | 8-759-603-27 | IC | M5201FP |
| IC671 | 8-741-150-50 | IC | SBX1505-01 |

< TRANSISTOR >

| | | | |
|---|---|---|---|
| Q601 | 8-729-901-06 | TRANSISTOR | DTA144EK |
| Q602 | 8-729-901-01 | TRANSISTOR | DTC144EK |
| Q603 | 8-729-901-01 | TRANSISTOR | DTC144EK |
| Q604 | 8-729-901-01 | TRANSISTOR | DTC144EK |
| Q605 | 8-729-901-06 | TRANSISTOR | DTA144EK |
| Q606 | 8-729-901-06 | TRANSISTOR | DTA144EK |
| Q607 | 8-729-901-01 | TRANSISTOR | DTC144EK |
| Q608 | 8-729-901-01 | TRANSISTOR | DTC144EK |
| Q609 | 8-729-901-06 | TRANSISTOR | DTA144EK |
| Q671 | 8-729-100-66 | TRANSISTOR | 2SC1623 |

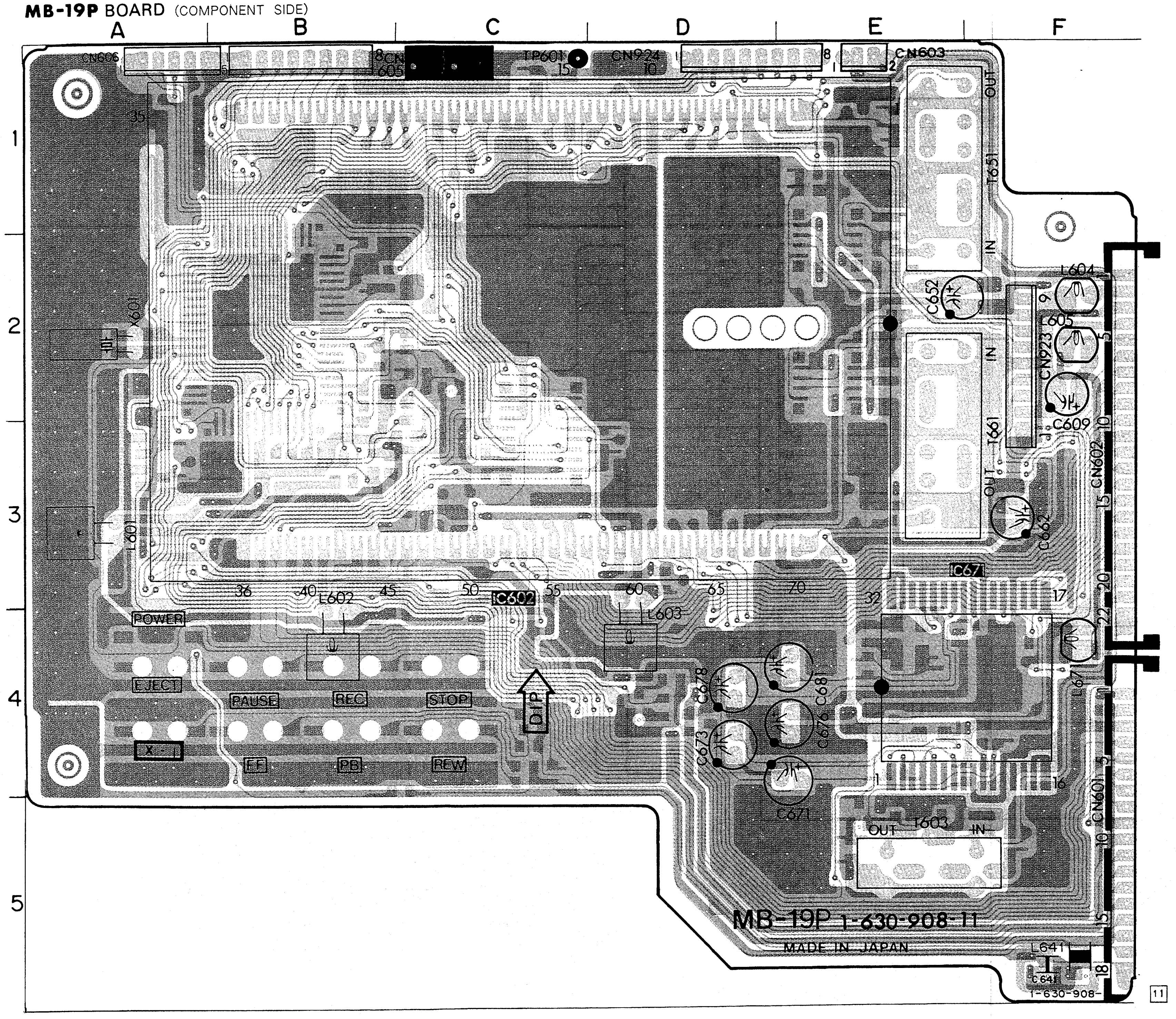
MB-19P BOARD (COMPONENT SIDE)

| | |
|---|---|
| IC602 | C-3 |
| IC671 | F-4 |

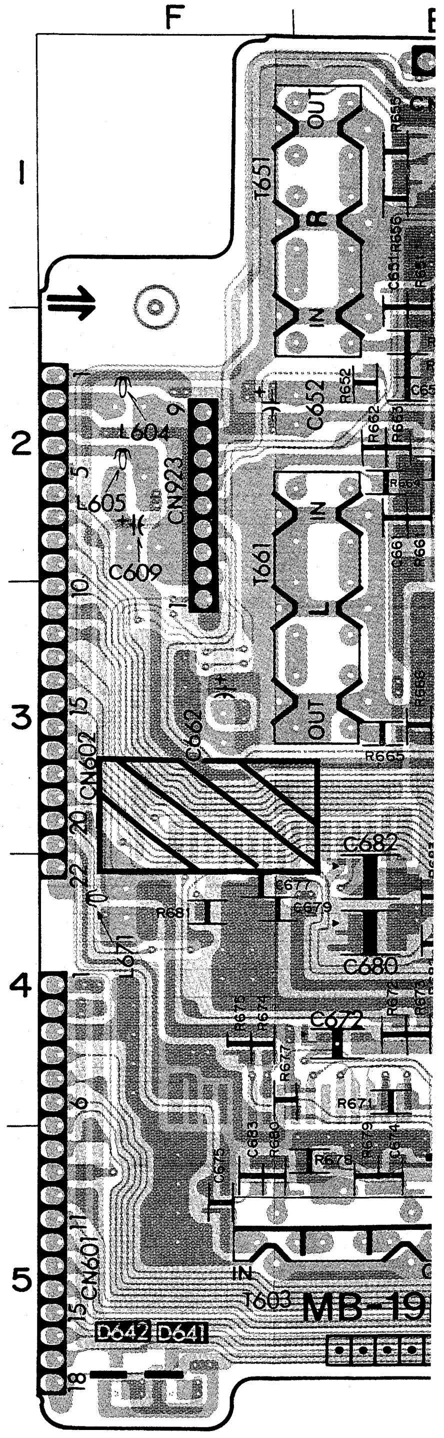
MB-19P BOARD (CONDUCTOR SIDE)

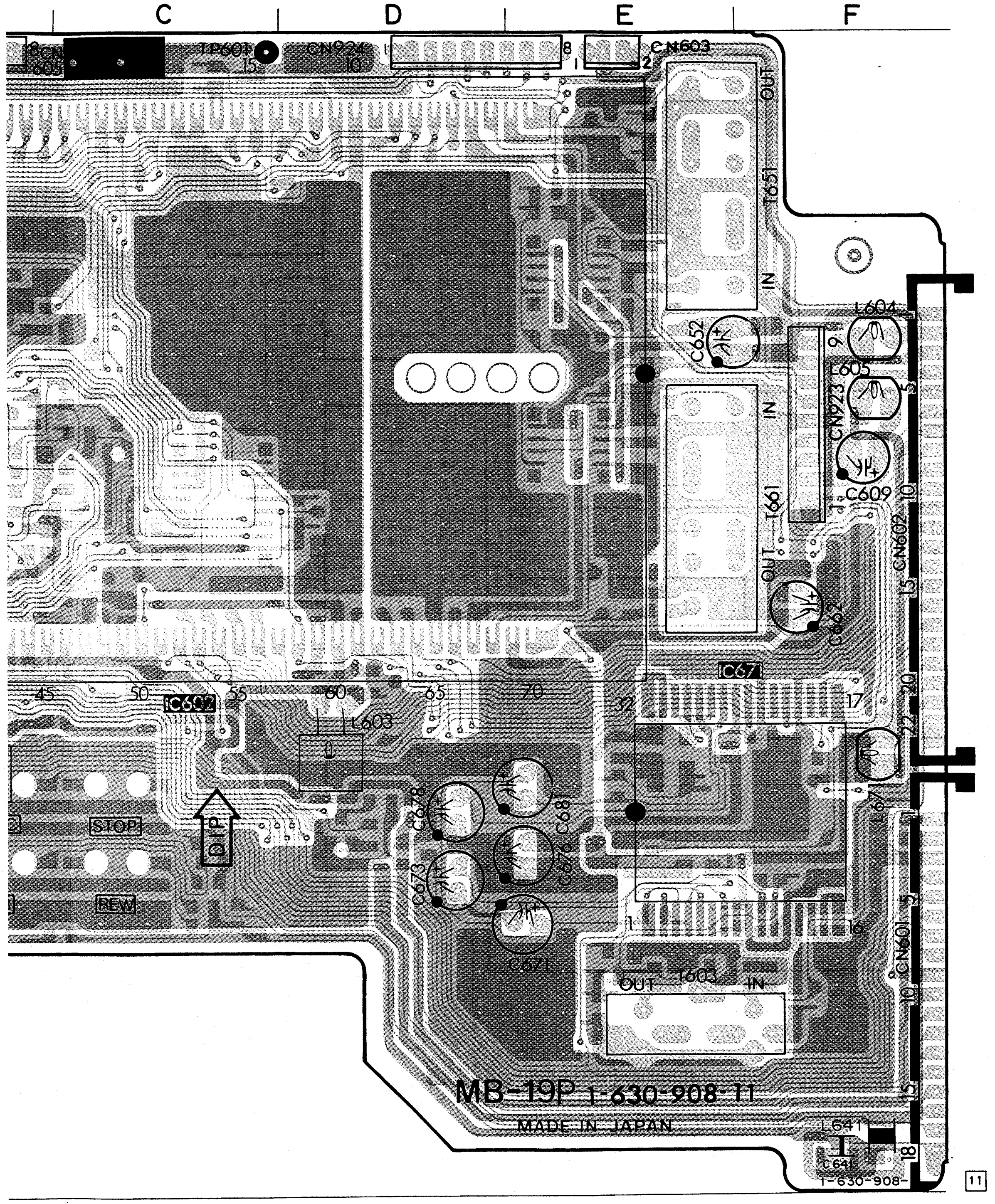
| | |
|---|---|
| D601 | C-4 |
| D602 | C-2 |
| D603 | C-2 |
| D604 | C-1 |
| D641 | F-5 |
| D642 | F-5 |
| IC601 | B-2 |
| IC603 | C-2 |
| IC651 | E-2 |
| IC661 | E-2 |
| Q601 | B-3 |
| Q602 | A-3 |
| Q603 | A-3 |
| Q604 | C-2 |
| Q605 | C-2 |
| Q606 | C-3 |
| Q607 | B-3 |
| Q608 | D-4 |
| Q609 | D-4 |
| Q671 | E-5 |

**MB-19P** BOARD (COMPONENT SIDE)

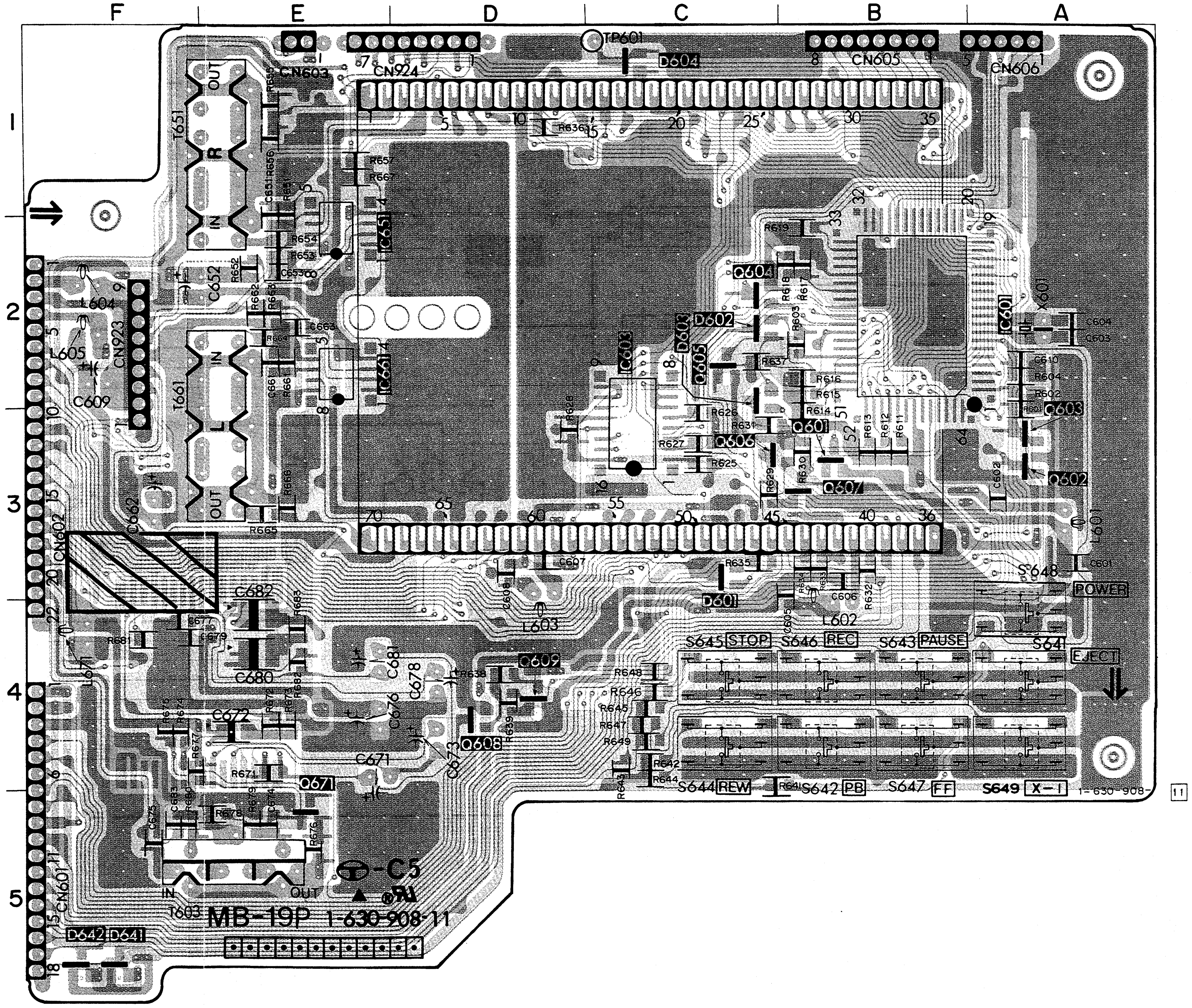

A
B
C
D
E
F
1
2
3
4
5
CN606
CN605
TP601
CN924
CN603
T651
OUT
IN
L604
L605
C652
CN923
C609
T661
CN602
C662
IC671
IC602
L601
L602
L603
POWER
EJECT
PAUSE
REC
STOP
X
FF
PB
REW
DIP
C678
C681
C673
C676
C671
T603
CN601
L641
C641
MB-19P 1-630-908-11
MADE IN JAPAN
1-630-908-
11

**MB-19P** BOARD (CONDUCTOR SIDE)


F
1
2
3
4
5
T651
OUT
IN
R
L
L604
L605
C609
CN923
C652
T661
CN602
C662
C682
C680
C672
L671
CN601
T603
D642
D641
MB-19

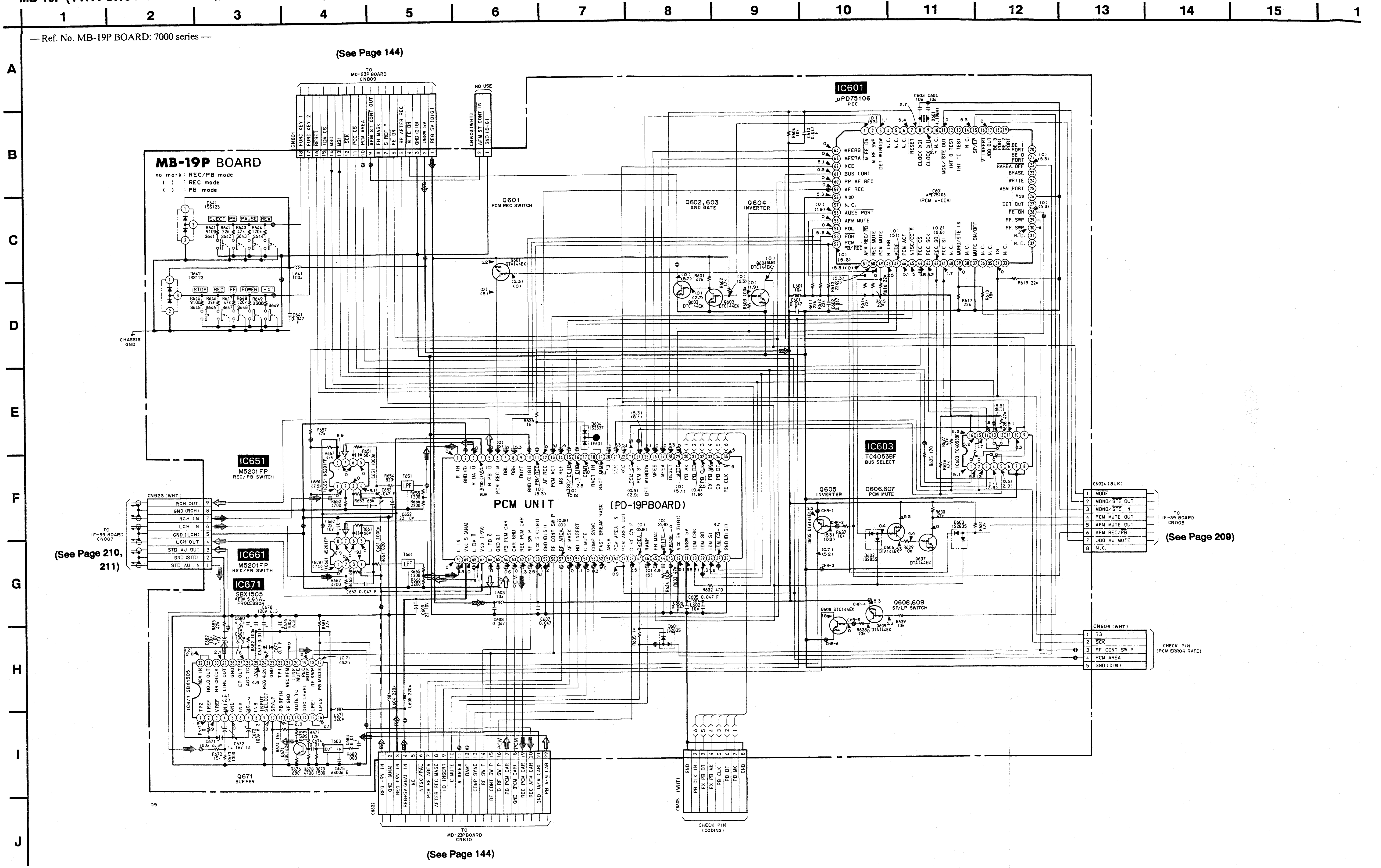

C
D
E
F
CN605
TP601
CN924
CN603
T651
T661
C652
L604
L605
CN923
C609
C662
CN602
IC671
IC602
L603
C678
C681
C676
C673
C671
STOP
REW
DIP
CN601
T603
OUT
IN
MB-19P 1-630-908-11
MADE IN JAPAN
L641
C641
1-630-908-
11

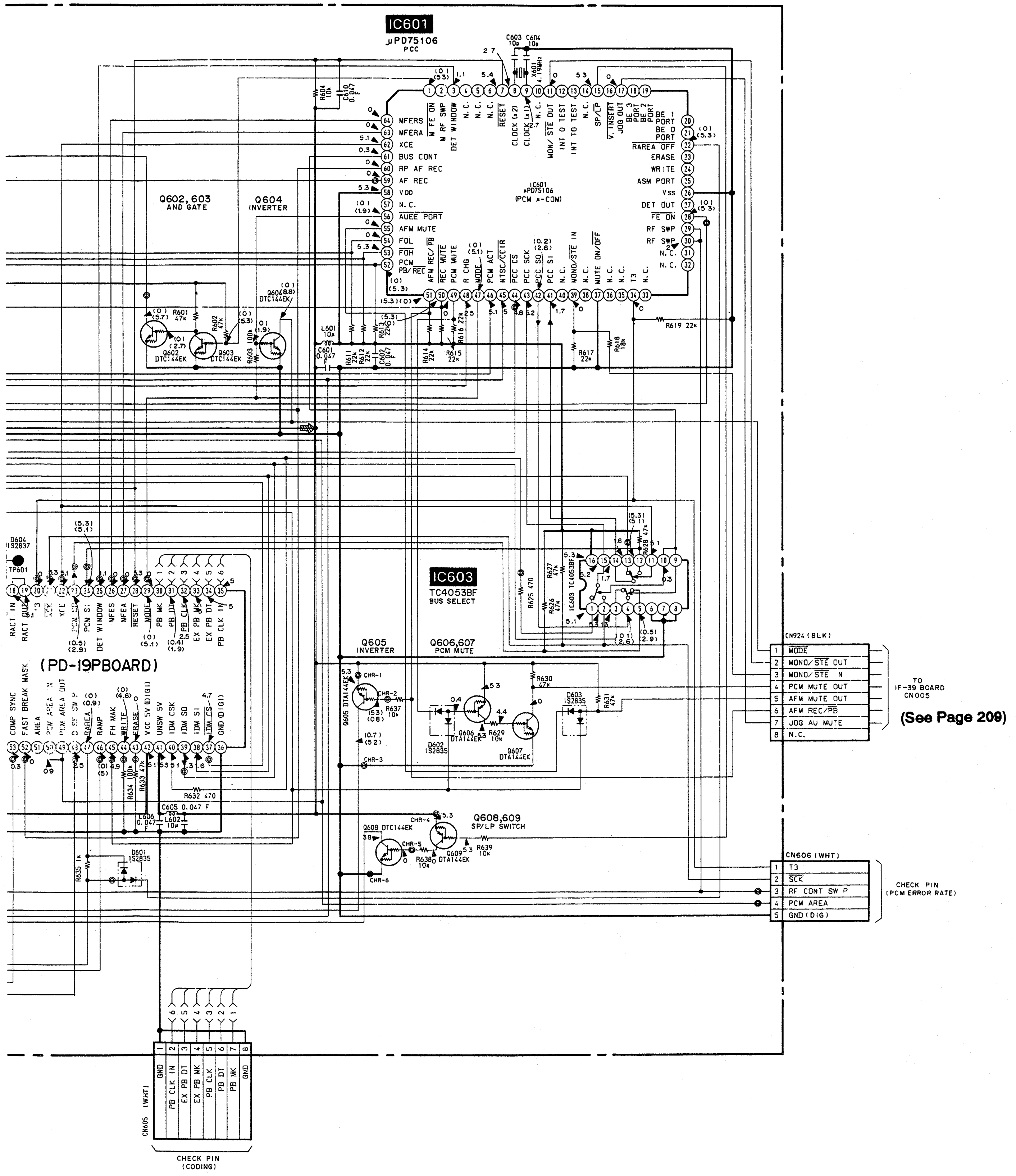
## MB-19P BOARD (CONDUCTOR SIDE)


F
E
D
C
B
A
1
2
3
4
5
TP601
D604
CN603
CN924
CN605
CN606
T651
T661
IC651
IC661
IC603
IC601
C652
L604
L605
CN923
C609
C662
CN602
Q604
D602
D603
Q605
Q601
Q606
Q607
Q603
Q602
X601
L601
S648
POWER
D601
L602
L603
S645 STOP
S646 REC
S643 PAUSE
S641
EJECT
C682
C680
C681
C678
C676
C671
C672
Q609
Q608
Q671
S644 REW
S642 PB
S647 FF
S649 X-1
CN601
T603
D642
D641
MB-19P 1-630-908-11
1-630-908-
11

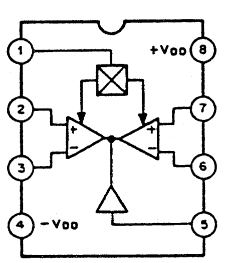
## MB-19P (VTR FUNCTION SWITCH, AUDIO PROCESS) SCHEMATIC DIAGRAM

— Ref. No. MB-19P BOARD: 7000 series —


1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
A
B
C
D
E
F
G
H
I
J
(See Page 144)
TO MD-23P BOARD CN809
NO USE
CN601
FUNC KEY 1
FUNC KEY 2
RESET
IDM CS
MSO
MSI
SCK
PCC CS
PCM AREA
AFM ST CONT OUT
FH MASK
S REF P
FE ON
RP AFTER REC
M FE ON
GND (DIG)
UNSW 5V
REG 5V (DIG)
CN603 (WHT)
AFM ST CONT IN
GND (DIG)
MB-19P BOARD
no mark : REC/PB mode
( ) : REC mode
< > : PB mode
D641 1SS123
EJECT
PB
PAUSE
REW
D642 1SS123
STOP
REC
FF
POWER
-X1
L641 100μ
C641 0.047
CHASSIS GND
Q601 PCM REC SWITCH
Q601 DTA144EK
IC601
μPD75106
PCC
IC601 μPD75106 (PCM μ-COM)
Q602,603 AND GATE
Q604 INVERTER
Q602 DTC144EK
Q603 DTC144EK
Q604 DTC144EK
MFERS
MFERA
XCE
BUS CONT
RP AF REC
AF REC
VDD
N.C.
AUEE PORT
AFM MUTE
FOL
FOH
PCM PB/REC
RESET
CLOCK
V.INSTRT
JOG OUT
BE PORT
RAREA OFF
ERASE
WRITE
ASM PORT
VSS
DET OUT
FE ON
RF SWP
R619 22k
IC651
M5201FP
REC/PB SWITCH
IC661
M5201FP
REC/PB SWITH
IC671
SBX1505
AFM SIGNAL PROCESSOR
Q671 BUFFER
T651
T661
T603
LPF
CN923 (WHT)
RCH OUT
GND (RCH)
RCH IN
LCH IN
GND (LCH)
LCH OUT
STD AU OUT
GND (STD)
STD AU IN
TO IF-39 BOARD CN007
(See Page 210, 211)
PCM UNIT
(PD-19PBOARD)
D604 1S2837
TP601
IC603
TC4053BF
BUS SELECT
Q605 INVERTER
Q606,607 PCM MUTE
Q608,609 SP/LP SWITCH
Q605 DTA144EK
Q606 DTA144EK
Q607 DTA144EK
Q608 DTC144EK
Q609 DTA144EK
D602 1S2835
D603 1S2835
D601 1S2835
CN924 (BLK)
MODE
MONO/STE OUT
MONO/STE IN
PCM MUTE OUT
AFM MUTE OUT
AFM REC/PB
JOG AU MUTE
N.C.
TO IF-39 BOARD CN005
(See Page 209)
CN606 (WHT)
T3
SCK
RF CONT SW P
PCM AREA
GND (DIG)
CHECK PIN (PCM ERROR RATE)
CN602
REG -9V IN
GND (ANA)
REG +9V IN
REG+5V (ANA) IN
NC
NTSC/PAL
PCM RF AREA
AFTER REC MASC
HD INSERT
C MUTE
R AREA
RAMP
COMP SYNC
RF SW P
RF CONT SW P
D RF SW P
PB PCM CAR
GND
REC PCM CAR
REC AFM CAR
GND (AFM CAR)
PB AFM CAR
TO MD-23P BOARD CN810
(See Page 144)
CN605 (WHT)
GND
PB CLK IN
EX PB DT
EX PB MK
PB CLK
PB DT
PB MK
GND
CHECK PIN (CODING)
09


IC601
μPD75106
PCC
IC601 μPD75106 (PCM μ-COM)
Q602,603 AND GATE
Q604 INVERTER
IC603
TC4053BF
BUS SELECT
Q605 INVERTER
Q606,607 PCM MUTE
Q608,609 SP/LP SWITCH
(PD-19PBOARD)
CN924 (BLK)
1 MODE
2 MONO/STE OUT
3 MONO/STE IN
4 PCM MUTE OUT
5 AFM MUTE OUT
6 AFM REC/PB
7 JOG AU MUTE
8 N.C.
TO IF-39 BOARD CN005
(See Page 209)
CN606 (WHT)
1 T3
2 SCK
3 RF CONT SW P
4 PCM AREA
5 GND (DIG)
CHECK PIN (PCM ERROR RATE)
CN605 (WHT)
1 GND
2 PB CLK IN
3 EX PB DT
4 EX PB MK
5 PB CLK
6 PB DT
7 PB MK
8 GND
CHECK PIN (CODING)

IC651, IC661 (M5201FP)

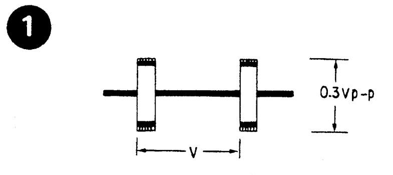

+VDD
-VDD
1
2
3
4
5
6
7
8

- **SIGNAL PATH**

| | VIDEO SIGNAL | | | AUDIO SIGNAL |
|---|---|---|---|---|
| | CHROMA | Y | Y/CHROMA/DATA | |
| REC | | | | ➡ |
| PB | | | | ⇨ |

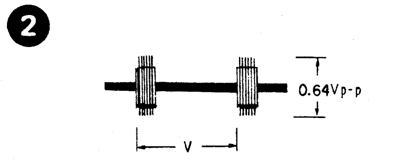
## PD-19P BOARD

❶



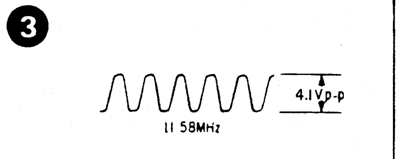
CN852 ⑦ PB

❷



CN852 ⑨ REC

❸


4.1Vp-p
11.58MHz

CN853 ⑫ EE

* A-7061-825-A PD-19 (P) BOARD. COMPLETE
*************************
(Ref. No 7,000 Series)

< DIODE >

| | | | |
|---|---|---|---|
| D851 | 8-719-104-34 | DIODE | 1S2835-T1 |
| D852 | 8-719-400-18 | DIODE | MA152WK |
| D853 | 8-719-400-18 | DIODE | MA152WK |

< IC >

| | | | |
|---|---|---|---|
| IC851 | 8-752-324-45 | IC | CXD1066Q-Z |
| IC852 | 8-759-929-17 | IC | CXD1051M-T1 |
| IC853 | 8-752-010-30 | IC | CX20103-T1 |
| IC854 | 8-752-010-20 | IC | CX20102-T1 |
| IC855 | 8-752-331-00 | IC | CXK5864BM-12L-T6 |
| IC856 | 8-759-948-61 | IC | CX23011-T1-C |
| IC857 | 8-759-911-19 | IC | CX23012-T1 |
| IC858 | 8-759-972-12 | IC | CF77305FT |
| IC859 | 8-752-809-68 | IC | CXP5024H-079Q |
| IC860 | 8-759-972-13 | IC | CF77309FR |

< TRANSISTOR >

| | | | |
|---|---|---|---|
| Q851 | 8-729-102-06 | TRANSISTOR | 2SC2223 |
| Q852 | 8-729-122-63 | TRANSISTOR | 2SA1226 |
| Q853 | 8-729-102-06 | TRANSISTOR | 2SC2223 |

* A-7061-826-A PA-27 BOARD. COMPLETE
***********************
(Ref. No 7,000 Series)

< DIODE >

| | | | |
|---|---|---|---|
| D031 | 8-719-104-34 | DIODE | 1S2835-T1 |
| D032 | 8-719-104-34 | DIODE | 1S2835-T1 |
| D033 | 8-719-104-34 | DIODE | 1S2835-T1 |

< IC >

| | | | |
|---|---|---|---|
| IC001 | 8-752-009-90 | IC | CX20099 |
| IC002 | 8-759-981-92 | IC | NJM4558M-T1 |
| IC003 | 8-759-981-92 | IC | NJM4558M-T1 |

< TRANSISTOR >

| | | | |
|---|---|---|---|
| Q001 | 8-729-202-38 | TRANSISTOR | 2SC3326N |
| Q002 | 8-729-202-38 | TRANSISTOR | 2SC3326N |
| Q031 | 8-729-901-06 | TRANSISTOR | DTA144EK |
| Q032 | 8-729-901-06 | TRANSISTOR | DTA144EK |
| Q033 | 8-729-901-06 | TRANSISTOR | DTA144EK |
| Q034 | 8-729-216-22 | TRANSISTOR | 2SA1162 |
| Q035 | 8-729-216-22 | TRANSISTOR | 2SA1162 |
| Q051 | 8-729-202-38 | TRANSISTOR | 2SC3326N |
| Q052 | 8-729-202-38 | TRANSISTOR | 2SC3326N |

## PD-19P (DIGITAL PCM AUDIO), PA-27 (ANALOG PCM AUDIO) PRINTED WIRING BOARDS

— Ref. No. PD-19P BOARD, PA-27 BOARD: 7000 series —

PD-19P BOARD (COMPONENT SIDE)

| | |
|---|---|
| D851 | A-2 |
| D852 | B-3 |
| D853 | C-2 |
| IC851 | C-3 |
| IC852 | B-2 |
| IC856 | C-1 |
| IC857 | B-1 |
| IC858 | D-2 |
| Q851 | B-3 |

PD-19P BOARD (CONDUCTOR SIDE)

| | |
|---|---|
| IC853 | A-1 |
| IC854 | A-2 |
| IC855 | C-1 |
| IC859 | D-1 |
| IC860 | C-2 |
| Q852 | A-3 |
| Q853 | A-3 |

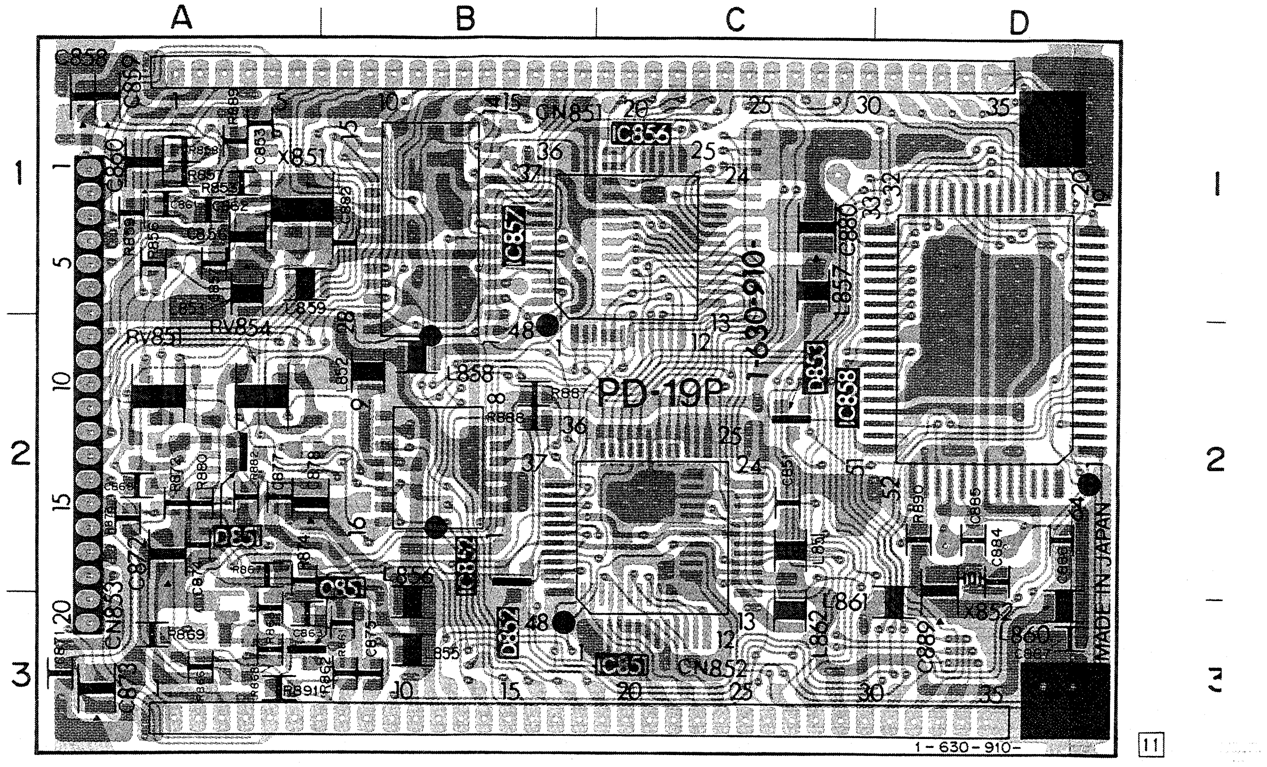
PA-27 BOARD (COMPONENT SIDE)

| | |
|---|---|
| D033 | B-1 |
| IC001 | C-2 |
| IC002 | B-3 |
| IC003 | B-1 |
| IC004 | A-2 |
| IC005 | A-3 |

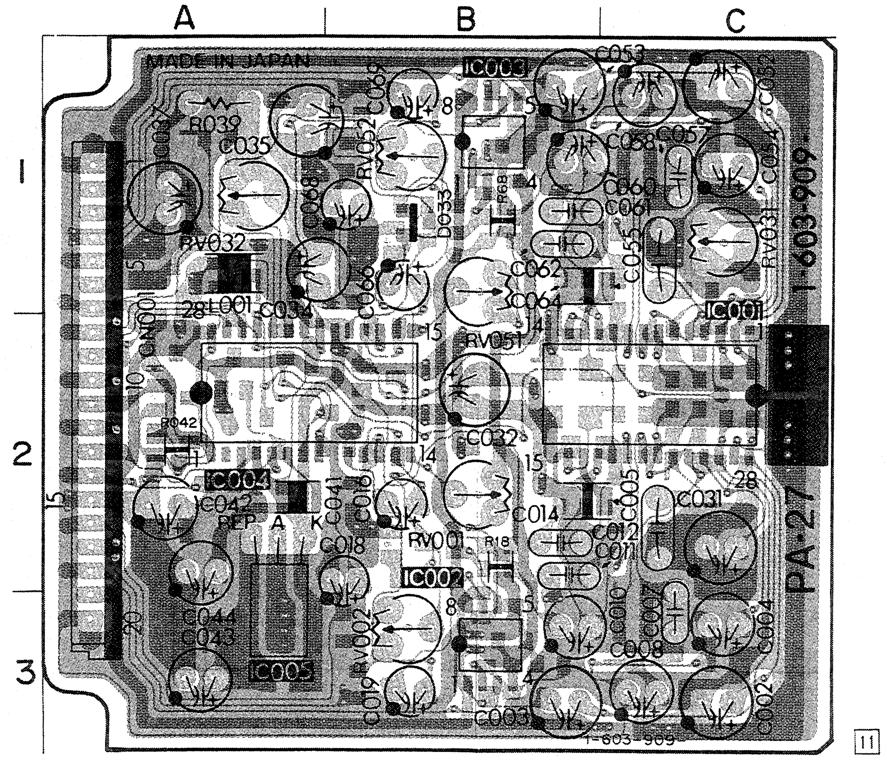
PA-27 BOARD (CONDUCTOR SIDE)

| | |
|---|---|
| D031 | A-2 |
| D032 | B-2 |
| Q001 | B-3 |
| Q002 | B-2 |
| Q031 | A-1 |
| Q032 | A-1 |
| Q033 | A-2 |
| Q034 | A-2 |
| Q035 | A-2 |
| Q051 | B-1 |
| Q052 | B-1 |

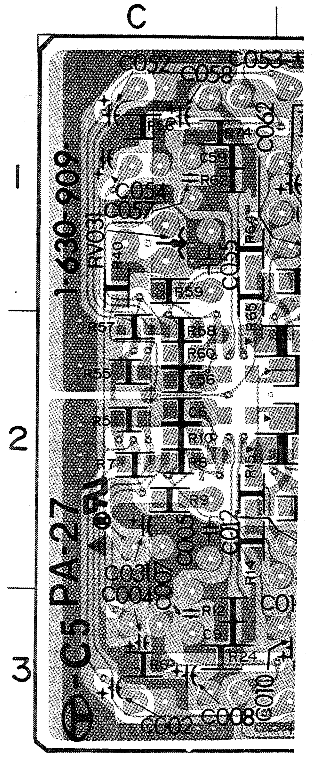
**PD-19P** BOARD (COMPONENT SIDE)


A
B
C
D
1
2
3
PD-19P
1-630-910-
IC856
IC857
IC852
IC858
IC851
CN851
CN852
CN853
X851
X852
RV851
RV854
D852
D853
Q851
MADE IN JAPAN
11

**PA-27** BOARD (COMPONENT SIDE)


A
B
C
1
2
3
MADE IN JAPAN
PA-27
1-603-909
IC001
IC002
IC003
IC004
IC005
RV001
RV002
RV031
RV032
RV051
D033
L001
C053
C035
C014
C042
C044
C043
11

**PA-27** BOARD (COND


C
1
2
3
1-630-909
PA-27
RV031
C052
C058
C054
C057
C031
C004
C002
C008
C010

## PD-19P (DIGITAL PCM AUDIO), PA-27 (ANALOG PCM AUDIO) PRINTED WIRING BOARDS

— Ref. No. PD-19P BOARD, PA-27 BOARD: 7000 series —

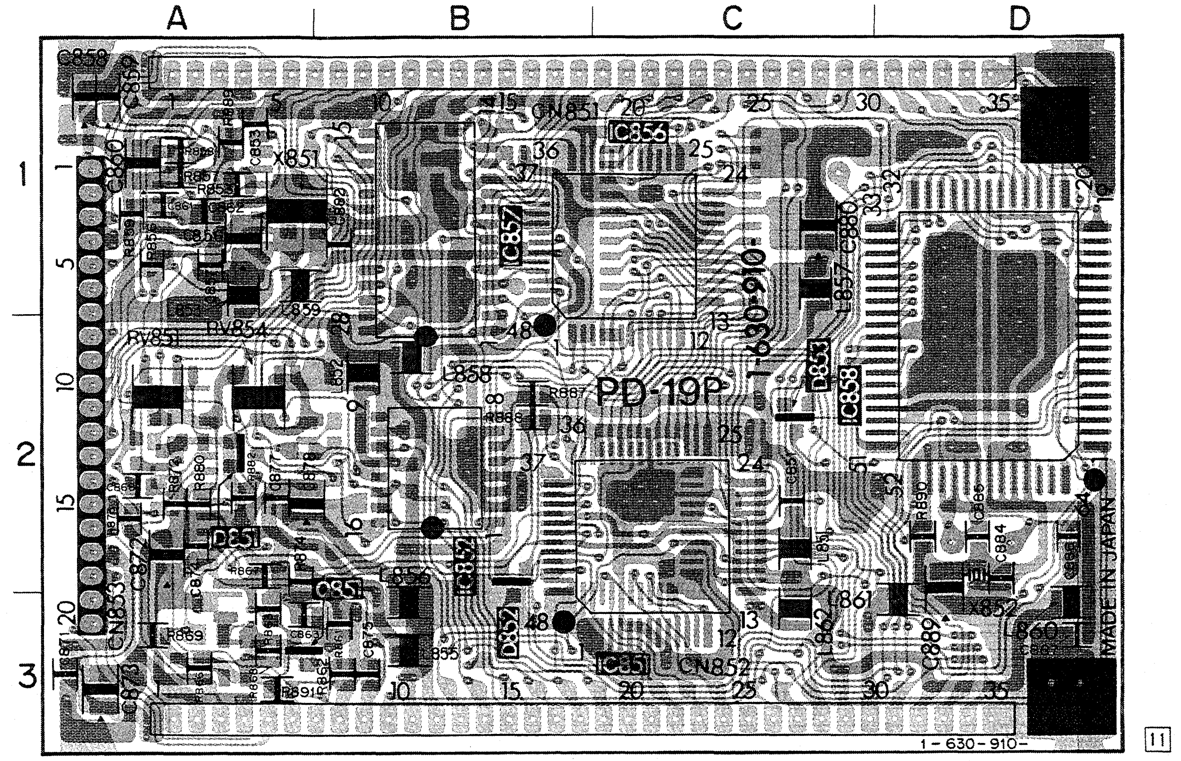
PD-19P BOARD
(COMPONENT
SIDE)

| | |
|---|---|
| D851 | A-2 |
| D852 | B-3 |
| D853 | C-2 |
| IC851 | C-3 |
| IC852 | B-2 |
| IC856 | C-1 |
| IC857 | B-1 |
| IC858 | D-2 |
| Q851 | B-3 |

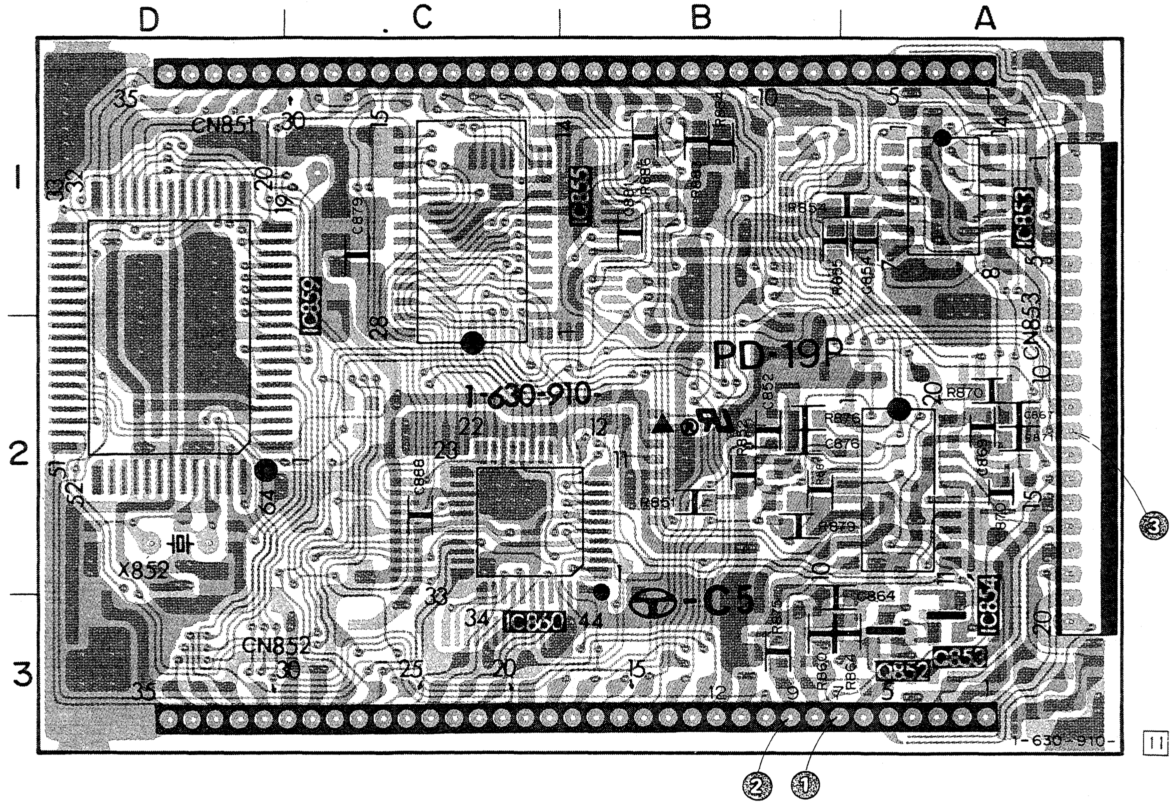
PD-19P BOARD
(CONDUCTOR
SIDE)

| | |
|---|---|
| IC853 | A-1 |
| IC854 | A-2 |
| IC855 | C-1 |
| IC859 | D-1 |
| IC860 | C-2 |
| Q852 | A-3 |
| Q853 | A-3 |

**PD-19P** BOARD (COMPONENT SIDE)


A
B
C
D
1
2
3
PD-19P
1-630-910-
MADE IN JAPAN
CN851
CN852
IC851
IC852
IC856
IC857
IC858
D851
D852
D853
Q851
X851
X852
RV851
RV854
11

**PD-19P** BOARD (CONDUCTOR SIDE)


D
C
B
A
1
2
3
PD-19P
1-630-910-
CN851
CN852
CN853
IC853
IC854
IC855
IC859
IC860
Q852
Q853
X852
C5
③
②
①
11

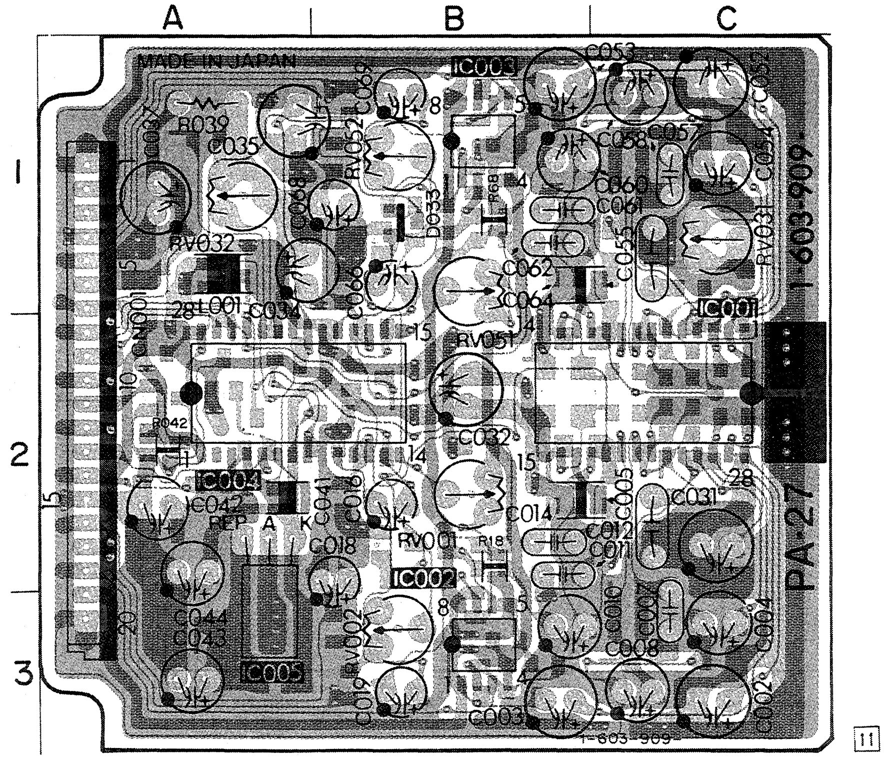
PA-27 BOARD
(COMPONENT
SIDE)

| | |
|---|---|
| D033 | B-1 |
| IC001 | C-2 |
| IC002 | B-3 |
| IC003 | B-1 |
| IC004 | A-2 |
| IC005 | A-3 |

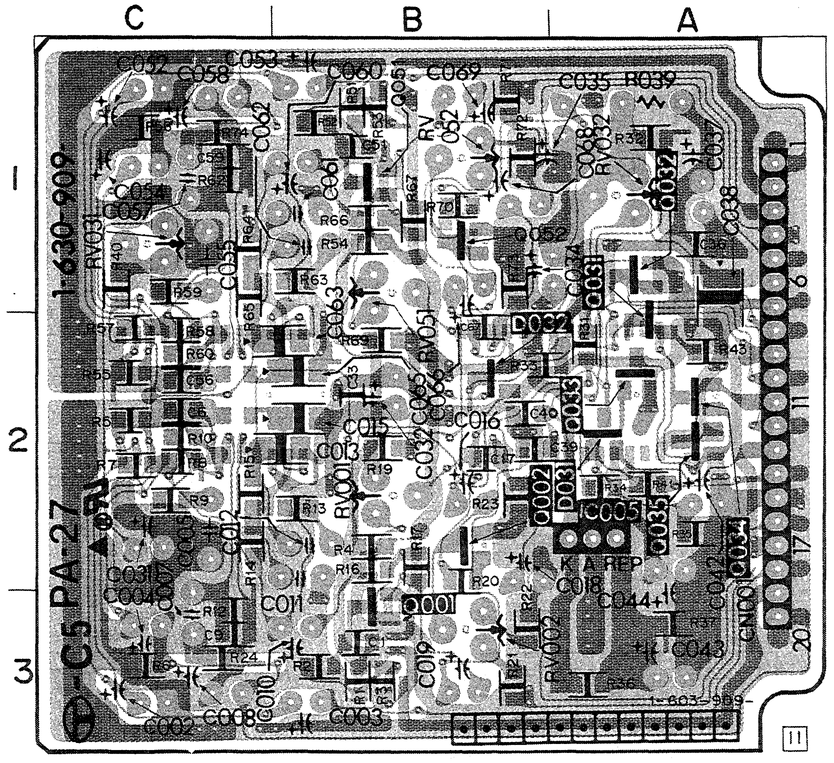
PA-27 BOARD
(CONDUCTOR
SIDE)

| | |
|---|---|
| D031 | A-2 |
| D032 | B-2 |
| Q001 | B-3 |
| Q002 | B-2 |
| Q031 | A-1 |
| Q032 | A-1 |
| Q033 | A-2 |
| Q034 | A-2 |
| Q035 | A-2 |
| Q051 | B-1 |
| Q052 | B-1 |

**PA-27** BOARD (COMPONENT SIDE)

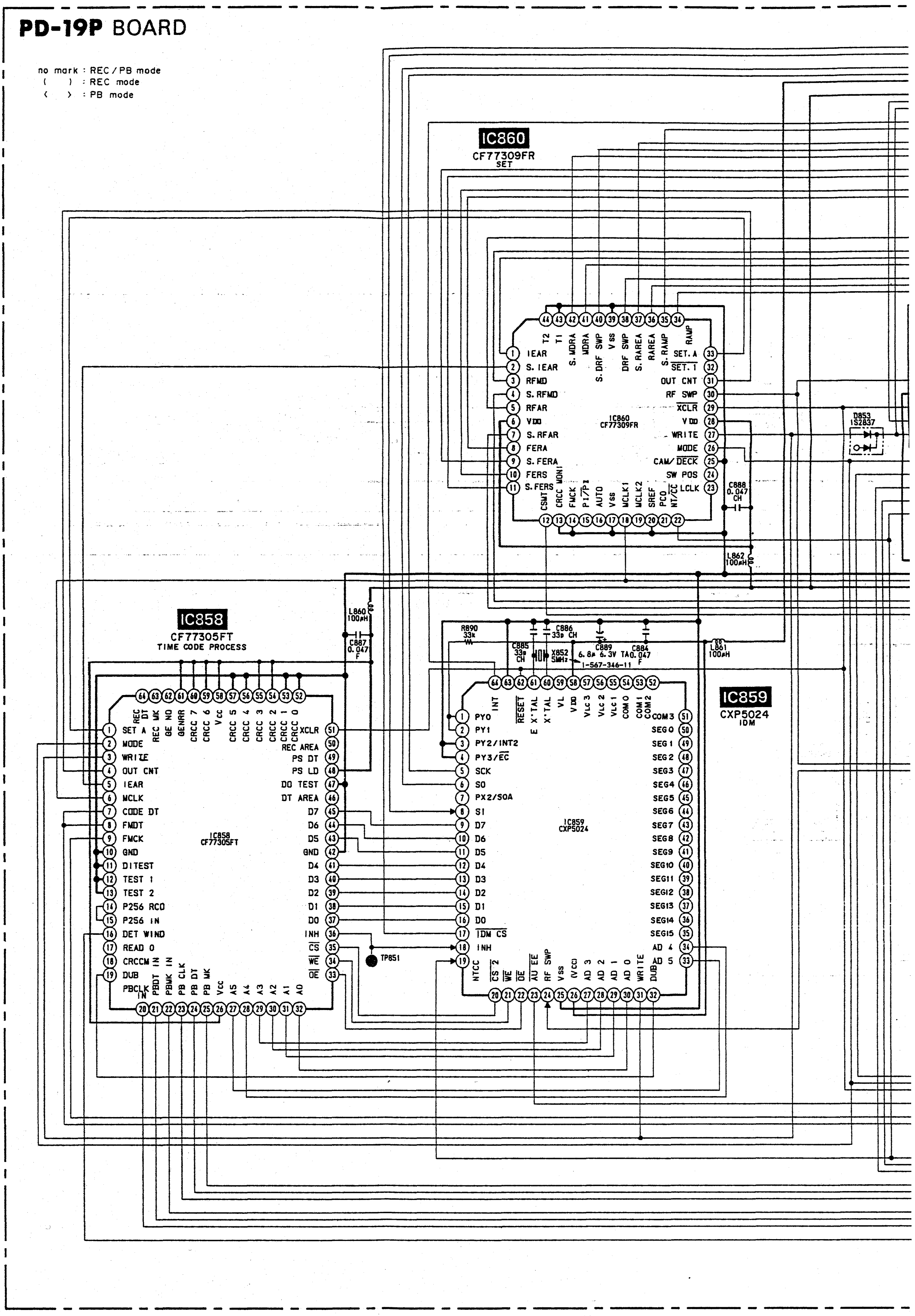

A
B
C
1
2
3
MADE IN JAPAN
PA-27
1-603-909-
IC001
IC002
IC003
IC004
IC005
D033
RV001
RV002
RV031
RV032
RV051
RV052
L001
CN001
11

**PA-27** BOARD (CONDUCTOR SIDE)

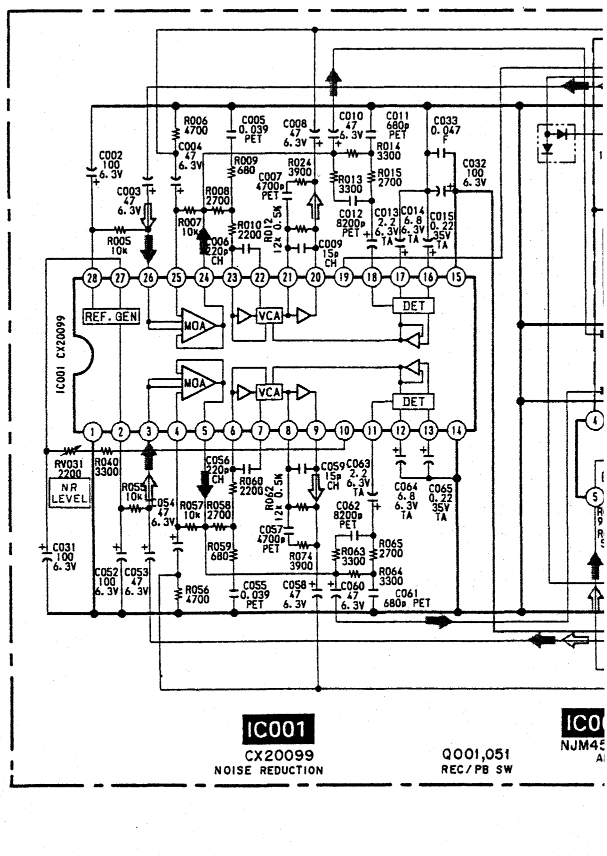

C
B
A
1
2
3
1-630-909-
PA-27
C5
1-603-909-
Q001
Q002
Q031
Q032
Q033
Q034
Q035
Q051
Q052
D031
D032
IC005
CN001
11

## PD-19P (DIGITAL PCM AUDIO), PA-27 (ANALOG PCM AUDIO) SCHEMATIC DIAGRAMS

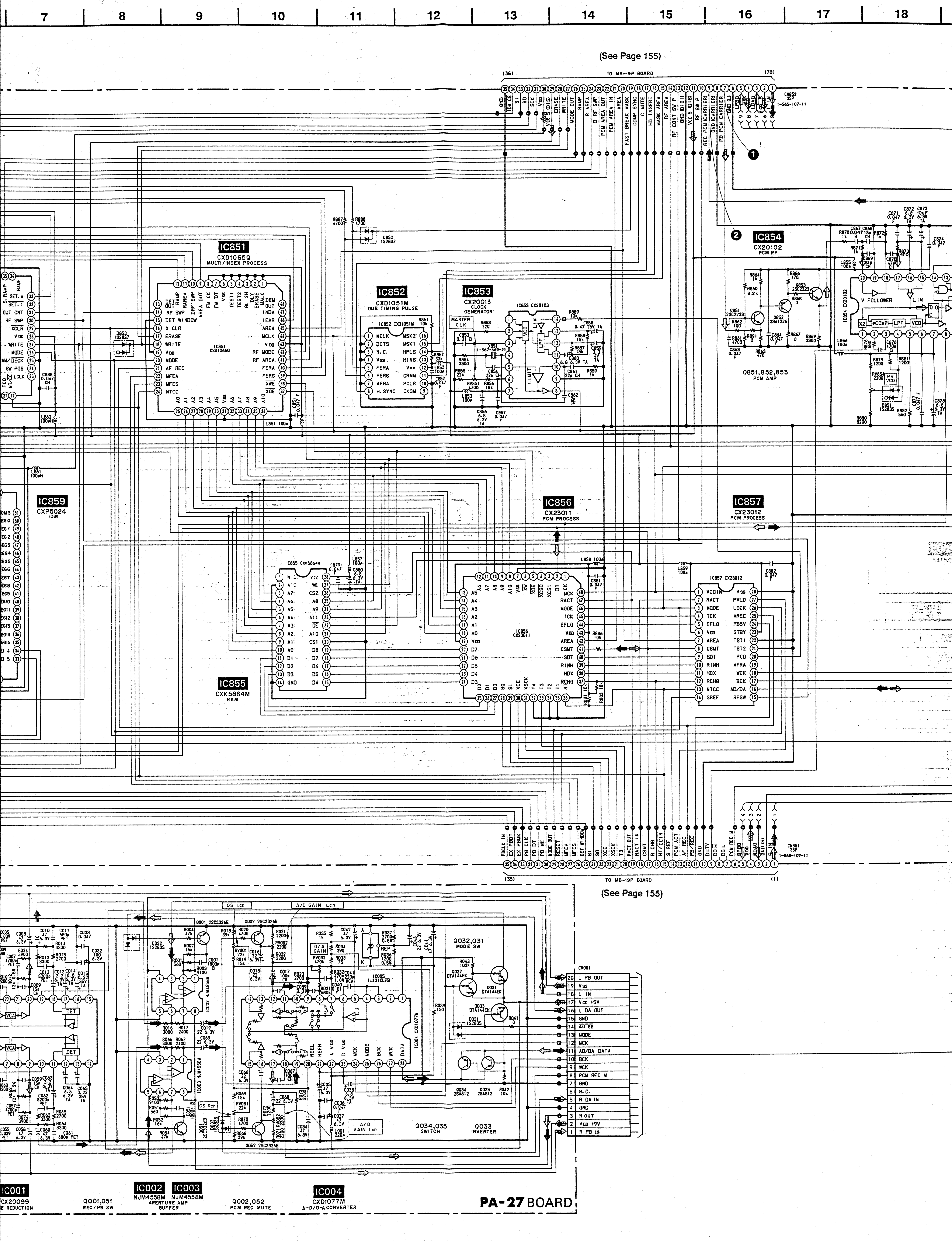
— Ref. No. PD-19P BOARD, PA-27 BOARD: 7000 series —

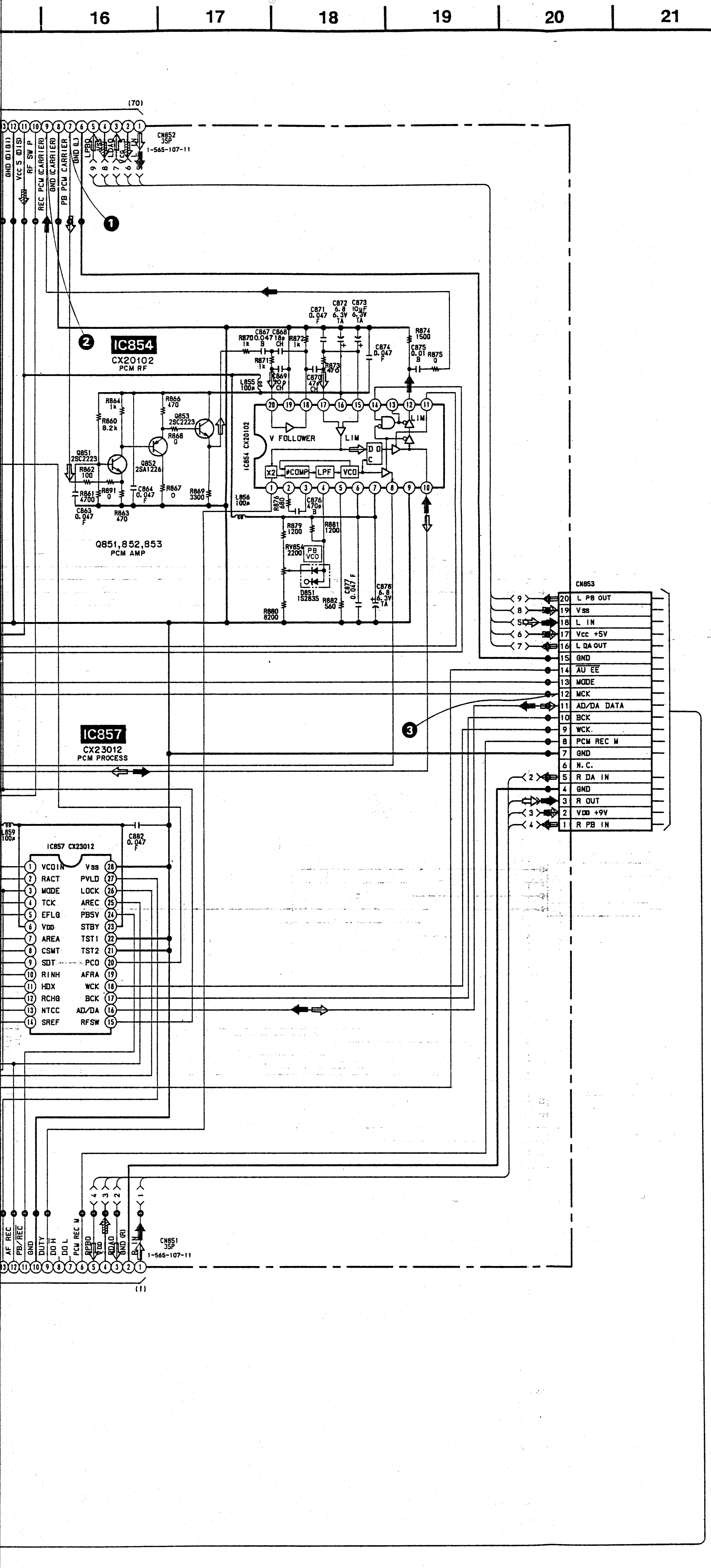


PD-19P BOARD
no mark : REC/PB mode
( ) : REC mode
〈 〉 : PB mode
IC860
CF77309FR
SET
IC858
CF77305FT
TIME CODE PROCESS
IC859
CXP5024
IDM
TP851
L860 100μH
L861 100μH
L862 100μH
C887 0.047 F
C888 0.047 CH
R890 33k
X852 5MHz
D853 1S2837



IC001 CX20099
REF. GEN
MOA
VCA
DET
RV031 2200 NR LEVEL
IC001
CX20099
NOISE REDUCTION
Q001,051
REC/PB SW
IC0
NJM45

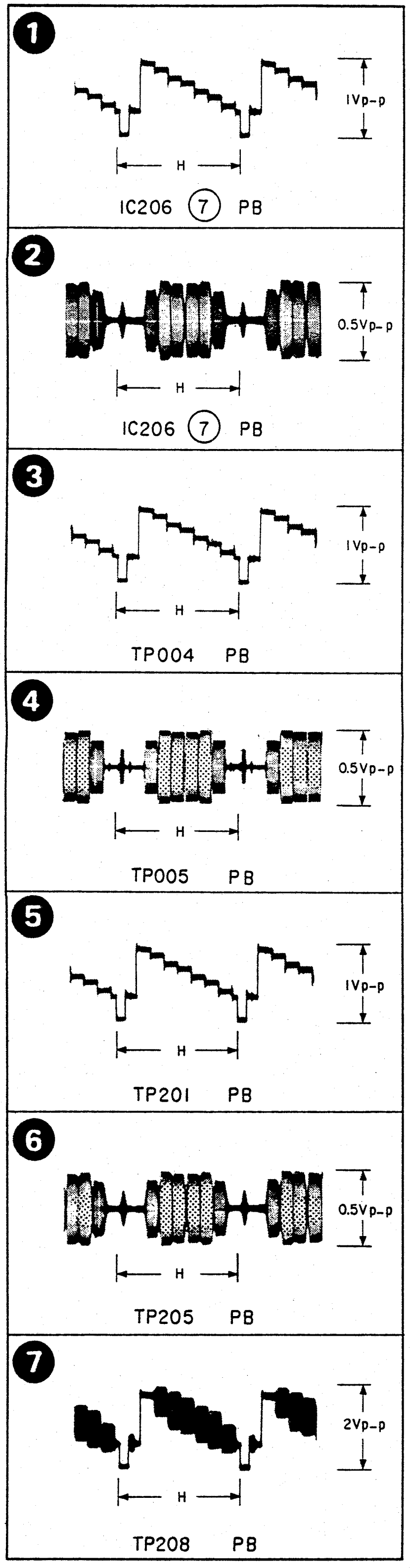

7
8
9
10
11
12
13
14
15
16
17
18
(See Page 155)
TO MB-19P BOARD
CN852 35P 1-565-107-11
IC851 CXD1065Q MULTI/INDEX PROCESS
IC852 CXD1051M DUB TIMING PULSE
IC853 CX20013 CLOCK GENERATOR
IC854 CX20102 PCM RF
Q851,852,853 PCM AMP
IC859 CXP5024 IDM
IC856 CX23011 PCM PROCESS
IC857 CX23012 PCM PROCESS
IC855 CXK5864M RAM
CN851 35P 1-565-107-11
TO MB-19P BOARD
(See Page 155)
OS Lch
A/D GAIN Lch
OS Rch
A/D GAIN Lch
Q032,031 MODE SW
Q034,035 SWITCH
Q033 INVERTER
CN001
IC001 CX20099 NOISE REDUCTION
Q001,051 REC/PB SW
IC002 NJM4558M IC003 NJM4558M APERTURE AMP BUFFER
Q002,052 PCM REC MUTE
IC004 CXD1077M A-D/D-A CONVERTER
PA-27 BOARD


16
17
18
19
20
21
22
23
24
25
26
27
(70)
CN852 3SP 1-565-107-11
GND (D181)
Vcc 5 (D15)
RF SW P
REC PCM (CARRIER)
GND (CARRIER)
PB PCM CARRIER
GND (L)
L PB IN
L OUT
L IN
❶
❷
IC854
CX20102
PCM RF
R864 1k
R860 8.2k
R866 470
Q853 2SC2223
R868 0
Q851 2SC2223
Q852 2SA1226
R862 100
R891 0
R861 4700
C864 0.047 F
R867 0
R869 3300
C863 0.047 F
R863 470
Q851,852,853
PCM AMP
C871 0.047 F
C872 6.8 6.3V TA
C873 10μF 6.3V TA
R874 1500
C875 0.01 B
R875 0
C874 0.047 F
R870 1k
C867 0.047 B
C868 18p CH
R872 1k
R871 1k
R873 470
L855 100μ
C869 470p CH
C870 47p CH
V FOLLOWER
LIM
D Q
C
X2
φCOMP
LPF
VCO
IC854 CX20102
L856 100μ
R876 680
C876 470p B
R879 1200
R881 1200
RV854 2200
PB VCO
D851 1S2835
R882 560
C877 0.047 F
C878 6.8 6.3V TA
R880 8200
CN853
20 L PB OUT
19 Vss
18 L IN
17 Vcc +5V
16 L DA OUT
15 GND
14 AU EE
13 MODE
12 MCK
11 AD/DA DATA
10 BCK
9 WCK
8 PCM REC M
7 GND
6 N.C.
5 R DA IN
4 GND
3 R OUT
2 VDD +9V
1 R PB IN
❸
IC857
CX23012
PCM PROCESS
L859 100μ
C882 0.047 F
IC857 CX23012
1 VCOIN
2 RACT
3 MODE
4 TCK
5 EFLG
6 VDD
7 AREA
8 CSMT
9 SDT
10 RINH
11 HDX
12 RCHG
13 NTCC
14 SREF
28 Vss
27 PVLD
26 LOCK
25 AREC
24 PBSV
23 STBY
22 TST1
21 TST2
20 PCO
19 AFRA
18 WCK
17 BCK
16 AD/DA
15 RFSW
AF REC
PB/REC
GND
DUTY
DO H
DO L
PCM REC M
R PB
VDD
R DA
GND (R)
R IN
CN851 3SP 1-565-107-11
(1)

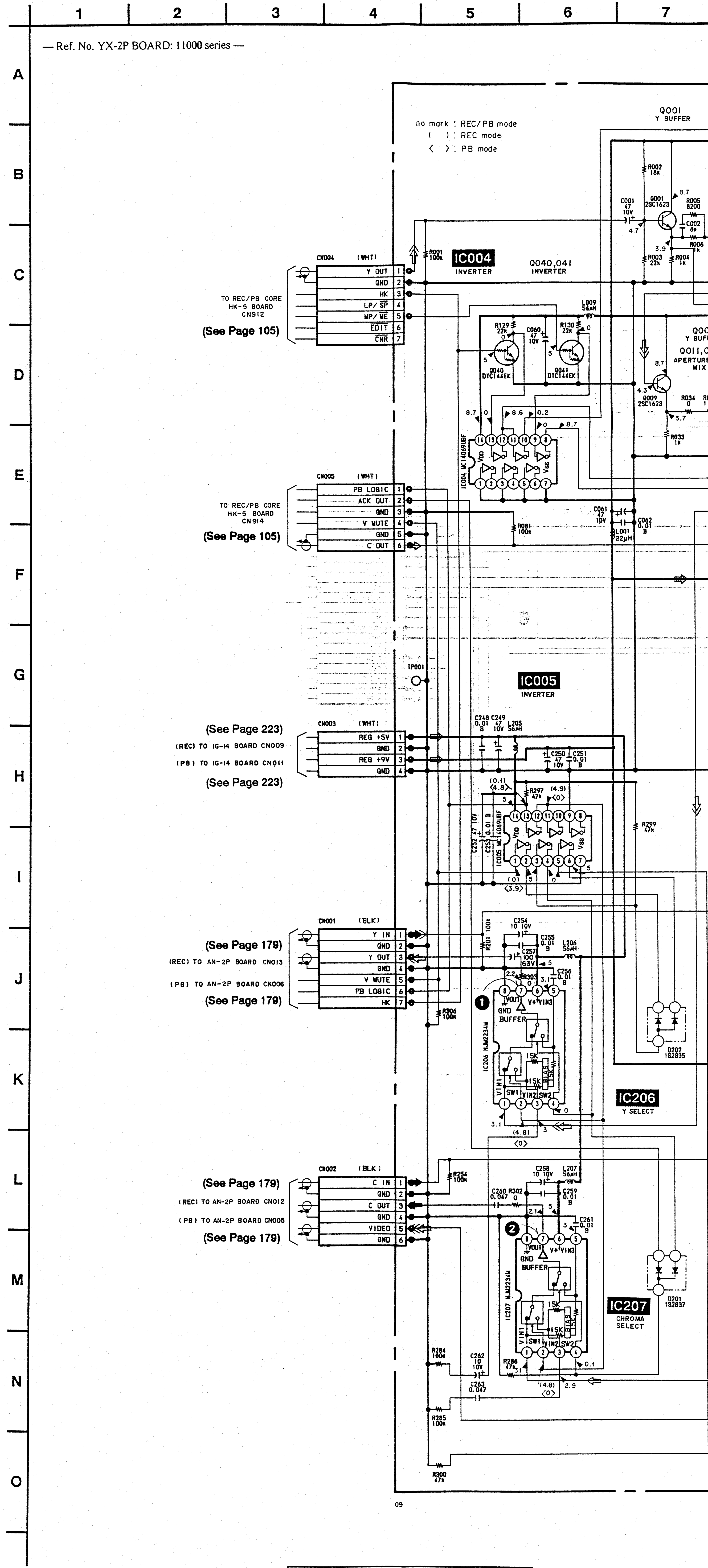
• **SIGNAL PATH**

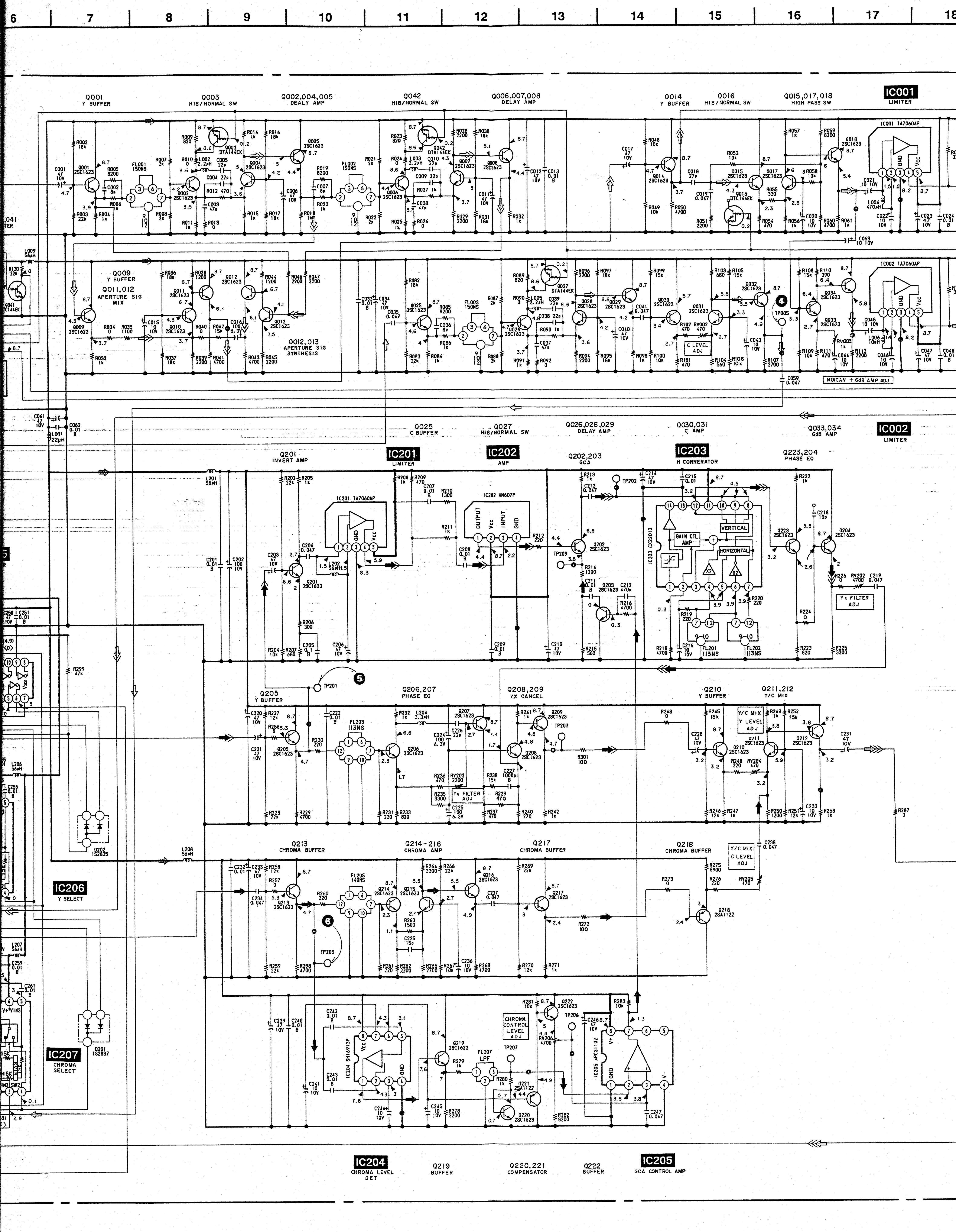
| | VIDEO SIGNAL | | | AUDIO SIGNAL |
|---|---|---|---|---|
| | CHROMA | Y | Y/CHROMA/DATA | |
| REC | | | | ➡ |
| PB | | | | ⇨ |

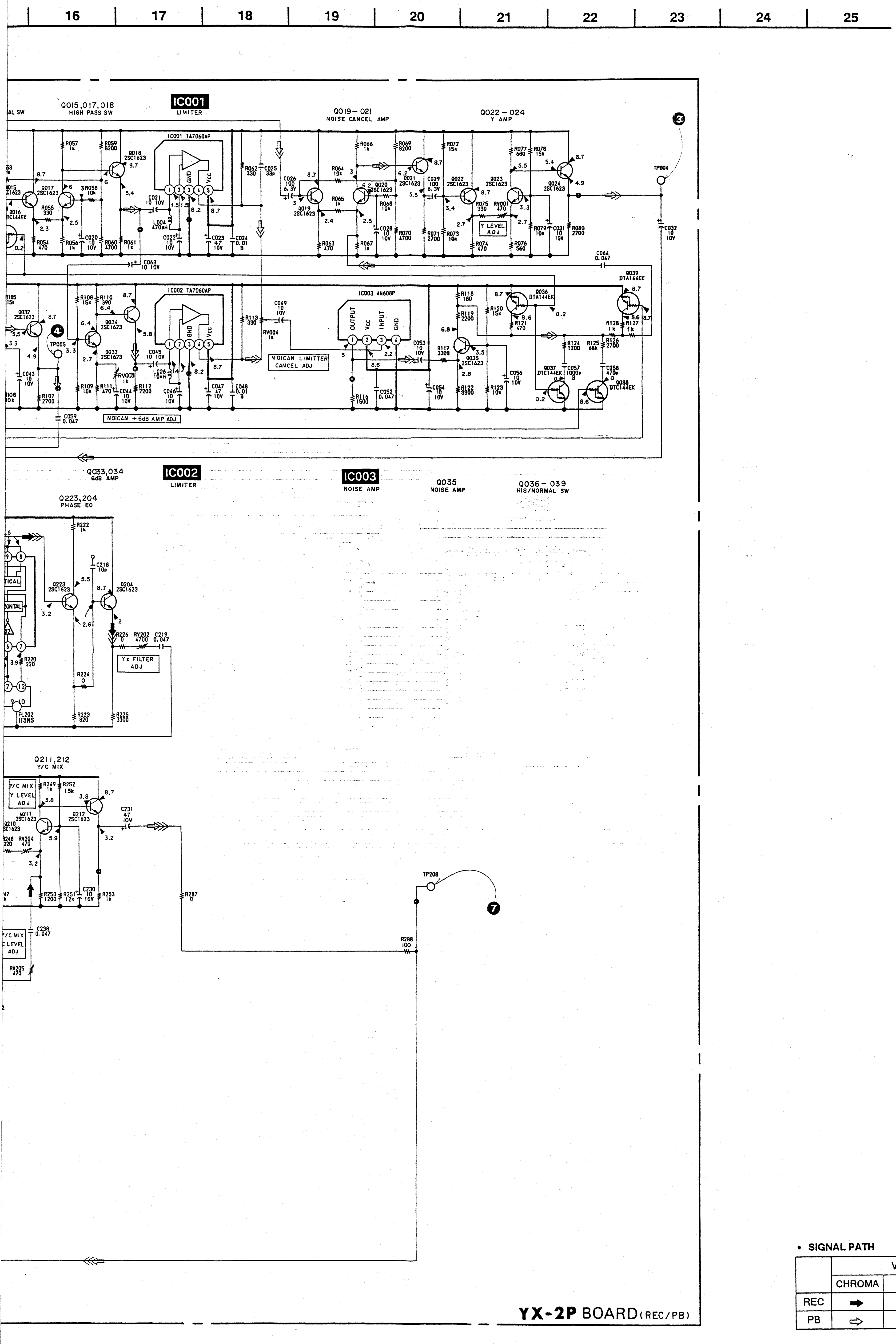
## YX-2P BOARD



## YX-2P (VIDEO) SCHEMATIC DIAGRAM


1
2
3
4
5
6
7
A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
— Ref. No. YX-2P BOARD: 11000 series —
no mark : REC/PB mode
( ) : REC mode
〈 〉 : PB mode
CN004 (WHT)
Y OUT
GND
HK
LP/SP
MP/ME
EDIT
CNR
TO REC/PB CORE HK-5 BOARD CN912
(See Page 105)
IC004
INVERTER
Q040,041
INVERTER
Q001
Y BUFFER
Q001 2SC1623
R001 100k
R002 18k
R003 22k
R004 1k
R005 8200
R006 1k
C001 47 10V
C002 8p
R129 22k
R130 22k
C060 47 10V
L009 56μH
Q040 DTC144EK
Q041 DTC144EK
IC004 MC14069UBF
VDD
VSS
Q009 2SC1623
Q011,0
APERTURE MIX
R033 1k
R034 0
CN005 (WHT)
PB LOGIC
ACK OUT
GND
V MUTE
GND
C OUT
TO REC/PB CORE HK-5 BOARD CN914
(See Page 105)
R081 100k
C061 47 10V
C062 0.01 B
L001 22μH
TP001
IC005
INVERTER
CN003 (WHT)
REG +5V
GND
REG +9V
GND
(See Page 223)
(REC) TO IG-14 BOARD CN009
(PB) TO IG-14 BOARD CN011
(See Page 223)
C248 0.01 B
C249 47 10V
L205 56μH
C250 47 10V
C251 0.01 B
R297 47k
C252 47 10V
C253 0.01 B
IC005 MC14069UBF
R299 47k
CN001 (BLK)
Y IN
GND
Y OUT
GND
V MUTE
PB LOGIC
HK
(See Page 179)
(REC) TO AN-2P BOARD CN013
(PB) TO AN-2P BOARD CN006
(See Page 179)
R201 100k
C254 10 10V
C255 0.01 B
C257 100 6.3V
L206 56μH
R303 0
C256 0.01 B
R306 100k
IC206 NJM2234M
YOUT
GND
V+
VIN3
BUFFER
15K
SW1
VIN2
SW2
VIN1
IC206
Y SELECT
D202 1S2835
CN002 (BLK)
C IN
GND
C OUT
GND
VIDEO
GND
(See Page 179)
(REC) TO AN-2P BOARD CN012
(PB) TO AN-2P BOARD CN005
(See Page 179)
R254 100k
C258 10 10V
L207 56μH
C259 0.01 B
C260 0.047
R302 0
C261 0.01 B
IC207 NJM2234M
IC207
CHROMA SELECT
D201 1S2837
R284 100k
R286 47k
C262 10 10V
C263 0.047
R285 100k
R300 47k
09


6
7
8
9
10
11
12
13
14
15
16
17
Q001
Y BUFFER
Q003
H18/NORMAL SW
Q002,004,005
DEALY AMP
Q042
H18/NORMAL SW
Q006,007,008
DELAY AMP
Q014
Y BUFFER
Q016
H18/NORMAL SW
Q015,017,018
HIGH PASS SW
IC001
LIMITER
IC001 TA7060AP
Q009
Y BUFFER
Q011,012
APERTURE SIG MIX
Q012,013
APERTURE SIG SYNTHESIS
IC002 TA7060AP
C LEVEL ADJ
NOICAN +6dB AMP ADJ
Q025
C BUFFER
Q027
H18/NORMAL SW
Q026,028,029
DELAY AMP
Q030,031
C AMP
Q033,034
6dB AMP
IC002
LIMITER
Q201
INVERT AMP
IC201
LIMITER
IC202
AMP
Q202,203
GCA
IC203
H CORRERATOR
Q223,204
PHASE EQ
IC201 TA7060AP
IC202 AN607P
OUTPUT
Vcc
INPUT
GND
IC203 CX22013
GAIN CTL AMP
VERTICAL
HORIZONTAL
Yx FILTER ADJ
TP201
TP202
TP209
Q205
Y BUFFER
Q206,207
PHASE EQ
Q208,209
YX CANCEL
Q210
Y BUFFER
Q211,212
Y/C MIX
Yx FILTER ADJ
Y/C MIX Y LEVEL ADJ
TP203
IC206
Y SELECT
D202
1S2835
Q213
CHROMA BUFFER
Q214-216
CHROMA AMP
Q217
CHROMA BUFFER
Q218
CHROMA BUFFER
Y/C MIX C LEVEL ADJ
TP205
IC207
CHROMA SELECT
D201
1S2837
IC204 SH16913P
FL207 LPF
CHROMA CONTROL LEVEL ADJ
TP206
TP207
IC205 μPC3110Z
IC204
CHROMA LEVEL DET
Q219
BUFFER
Q220,221
COMPENSATOR
Q222
BUFFER
IC205
GCA CONTROL AMP


16
17
18
19
20
21
22
23
24
25
IC001
LIMITER
IC001 TA7060AP
Q015,017,018
HIGH PASS SW
Q019－021
NOISE CANCEL AMP
Q022－024
Y AMP
IC002 TA7060AP
IC003 AN608P
NOICAN LIMITTER CANCEL ADJ
NOICAN +6dB AMP ADJ
Y LEVEL ADJ
TP004
TP005
IC002
LIMITER
IC003
NOISE AMP
Q033,034
6dB AMP
Q035
NOISE AMP
Q036－039
HIB/NORMAL SW
Q223,204
PHASE EQ
Yx FILTER ADJ
FL202
113NS
Q211,212
Y/C MIX
Y/C MIX Y LEVEL ADJ
Y/C MIX C LEVEL ADJ
TP208
OUTPUT
Vcc
INPUT
GND
❸
❹
❼

**YX-2P** BOARD (REC/PB)

- **SIGNAL PATH**

| | VIDEO SIGNAL | | | AUDI SIGN |
|---|---|---|---|---|
| | CHROMA | Y | Y/CHROMA/DATA | |
| REC | ➡ | ➡➡ | ➡➡➡ | |
| PB | ⇨ | ⇨⇨ | ⇨⇨⇨ | |

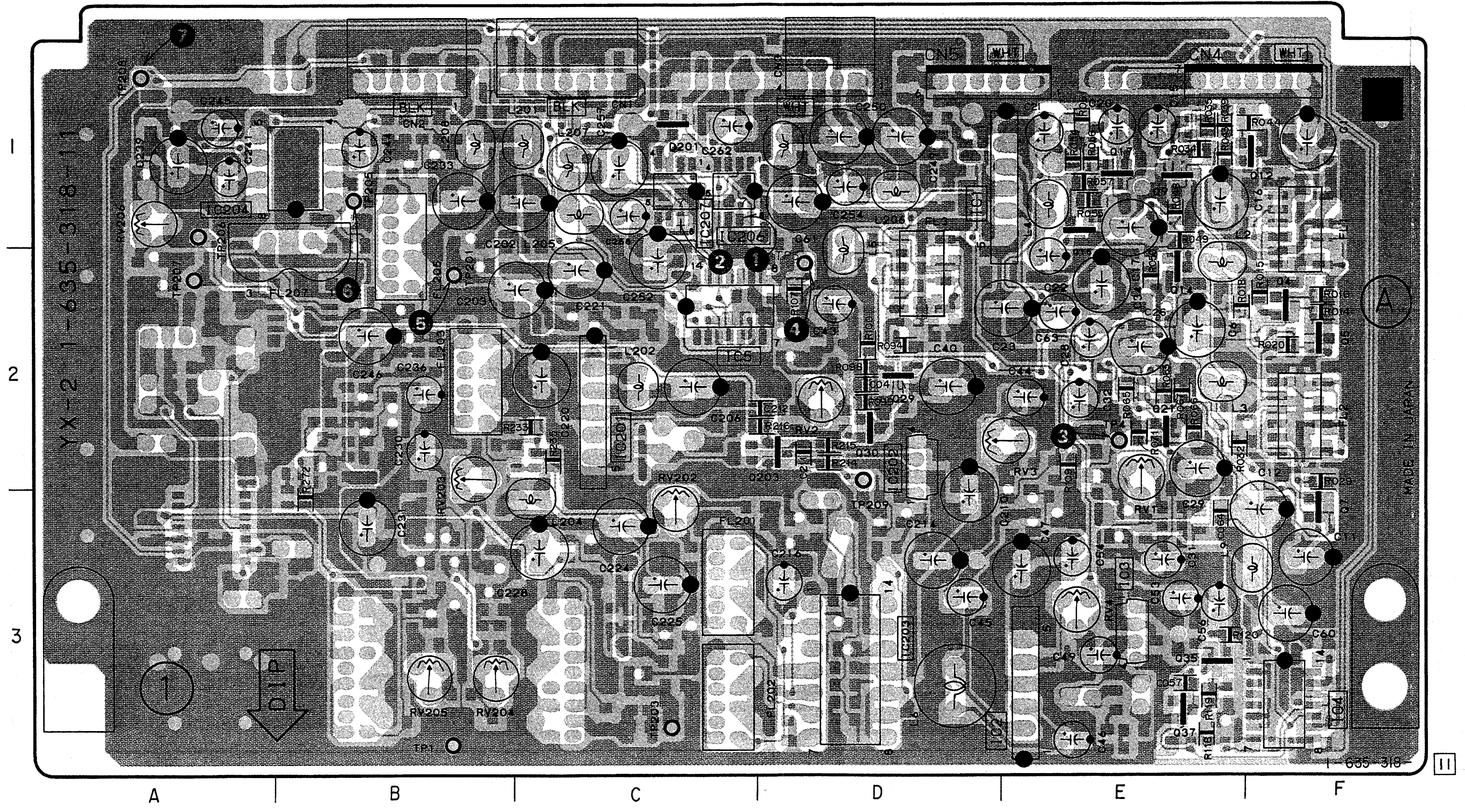
## YX-2P (VIDEO) PRINTED WIRING BOARD

— Ref. No. YX-2P BOARD: 11000 series —

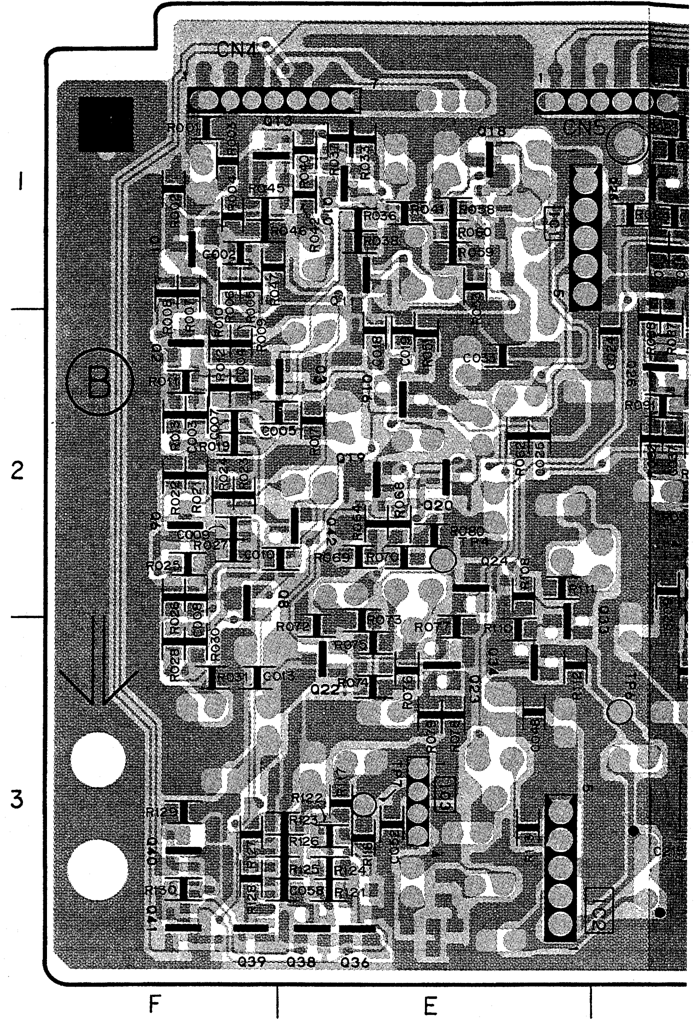
| YX-2P BOARD (COMPONENT SIDE) | |
|---|---|
| D201 | C-1 |
| IC001 | D-1 |
| IC002 | E-3 |
| IC003 | E-3 |
| IC004 | F-3 |
| IC005 | C-2 |
| IC201 | C-2 |
| IC202 | D-2 |
| IC203 | D-2 |
| IC204 | B-1 |
| IC206 | C-1 |
| IC207 | C-1 |
| Q004 | F-2 |
| Q005 | F-2 |
| Q007 | F-3 |
| Q009 | E-1 |
| Q012 | E-1 |
| Q014 | E-1 |
| Q015 | E-1 |
| Q017 | E-1 |
| Q021 | E-2 |
| Q029 | D-2 |
| Q030 | D-2 |
| Q035 | E-3 |
| Q037 | E-3 |
| Q203 | D-2 |
| Q206 | C-2 |

| YX-2P BOARD (CONDUCTOR SIDE) | |
|---|---|
| D202 | C-2 |
| IC205 | B-2 |
| Q001 | F-1 |
| Q002 | F-2 |
| Q003 | F-2 |
| Q006 | F-2 |
| Q008 | F-2 |
| Q010 | E-1 |
| Q011 | E-1 |
| Q013 | F-1 |
| Q016 | E-2 |
| Q018 | E-1 |
| Q019 | E-2 |
| Q020 | E-2 |
| Q022 | E-3 |
| Q023 | E-3 |
| Q024 | E-2 |
| Q025 | D-1 |
| Q026 | D-2 |
| Q027 | D-2 |
| Q028 | D-2 |
| Q031 | D-2 |
| Q032 | D-2 |
| Q033 | E-2 |
| Q034 | E-3 |
| Q036 | E-3 |
| Q038 | E-3 |
| Q039 | F-4 |
| Q040 | F-4 |
| Q041 | F-4 |
| Q042 | E-2 |
| Q201 | C-2 |
| Q202 | D-3 |
| Q204 | D-3 |
| Q205 | B-2 |
| Q207 | C-3 |
| Q208 | C-3 |
| Q209 | C-3 |
| Q210 | B-3 |
| Q211 | B-3 |
| Q212 | B-3 |
| Q213 | B-1 |
| Q214 | B-2 |
| Q215 | B-2 |
| Q216 | B-2 |
| Q217 | B-2 |
| Q218 | B-3 |
| Q219 | B-1 |
| Q220 | A-1 |
| Q221 | A-1 |
| Q222 | A-1 |
| Q223 | D-3 |

**YX-2P BOARD** (COMPONENT SIDE)



**YX-2P BOARD** (CONDUCTOR SIDE)



* A-7062-845-A YX-2 (P) BOARD, COMPLETE
************************
(Ref.No 11,000 Series)

### DIODE

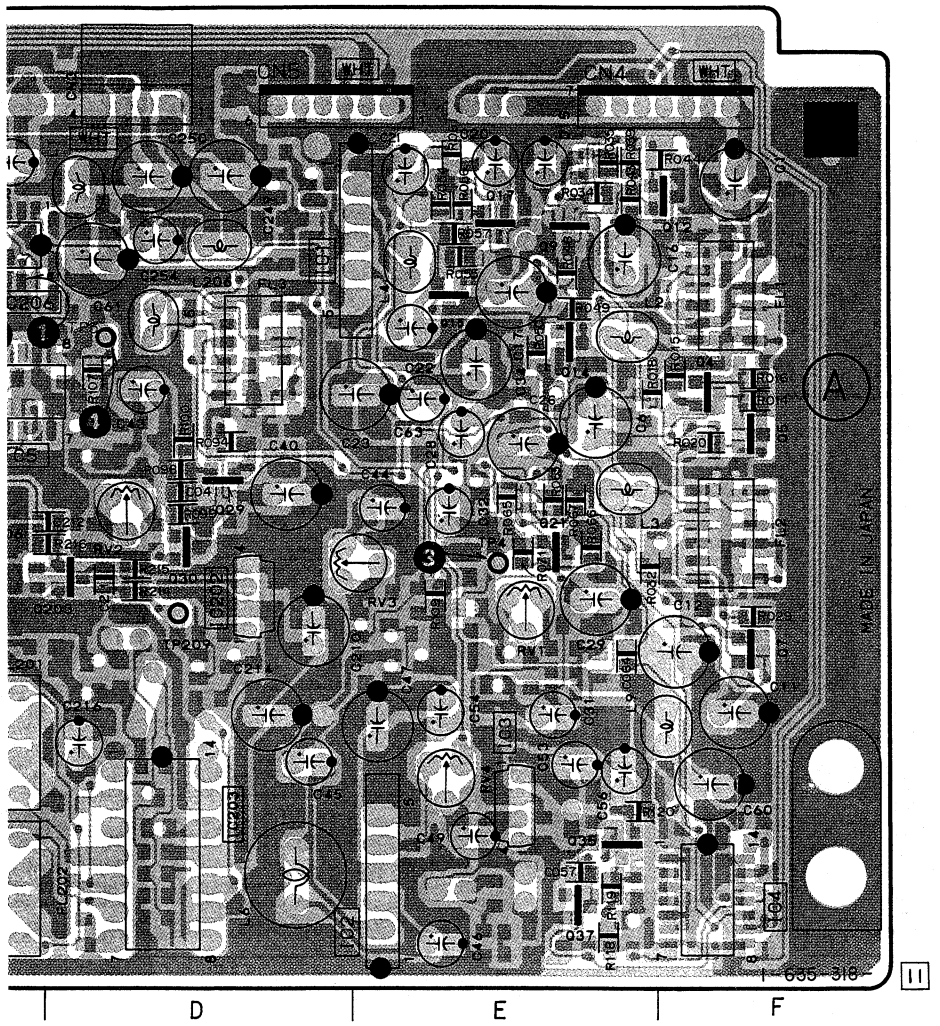
| | | |
|---|---|---|
| D201 | 8-719-400-18 | DIODE 1S2836 |
| D202 | 8-719-104-34 | DIODE MA152WK |

### IC

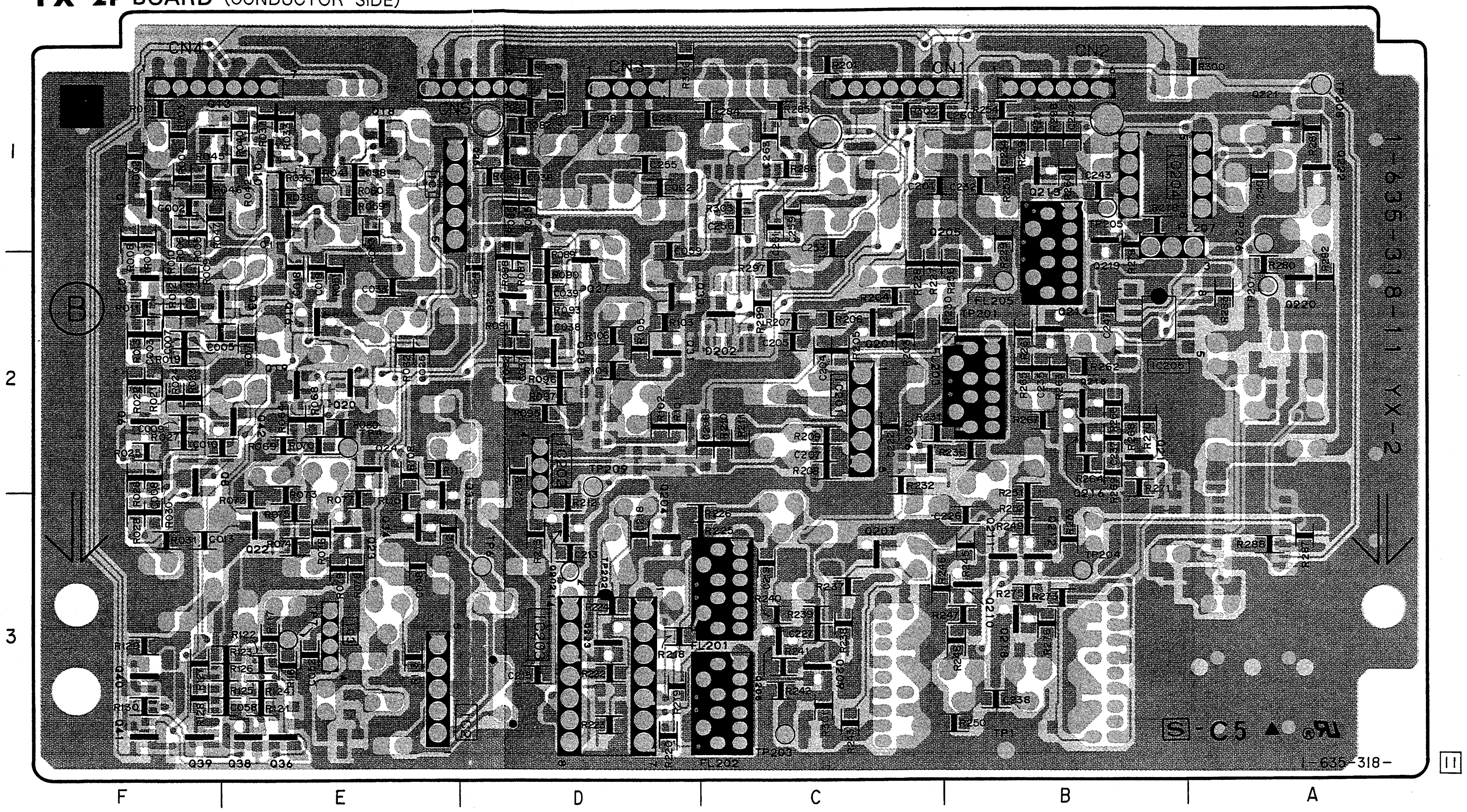
| | | |
|---|---|---|
| IC001 | 8-759-200-60 | IC TA7060AP |
| IC002 | 8-759-200-60 | IC TA7060AP |
| IC003 | 8-759-400-06 | IC AN608P |
| IC004 | 8-759-009-10 | IC MC14069UBF |
| IC005 | 8-759-009-10 | IC MC14069UBF |
| IC201 | 8-759-200-60 | IC TA7060AP |
| IC202 | 8-759-402-33 | IC AN607P |
| IC203 | 8-752-201-30 | IC CX22013 |
| IC204 | 8-759-969-13 | IC SN16913P |
| IC205 | 8-759-101-12 | IC UPC311G2 |
| IC206 | 8-759-710-07 | IC NJM2234M |
| IC207 | 8-759-710-07 | IC NJM2234M |

### TRANSISTOR

| | | |
|---|---|---|
| Q001 | 8-729-100-66 | TRANSISTOR 2SC1623 |
| Q002 | 8-729-100-66 | TRANSISTOR 2SC1623 |
| Q003 | 8-729-901-06 | TRANSISTOR DTA144EK |
| Q004 | 8-729-100-66 | TRANSISTOR 2SC1623 |
| Q005 | 8-729-100-66 | TRANSISTOR 2SC1623 |
| Q006 | 8-729-100-66 | TRANSISTOR 2SC1623 |
| Q007 | 8-729-100-66 | TRANSISTOR 2SC1623 |
| Q008 | 8-729-100-66 | TRANSISTOR 2SC1623 |
| Q009 | 8-729-100-66 | TRANSISTOR 2SC1623 |
| Q010 | 8-729-100-66 | TRANSISTOR 2SC1623 |
| Q011 | 8-729-100-66 | TRANSISTOR 2SC1623 |
| Q012 | 8-729-100-66 | TRANSISTOR 2SC1623 |
| Q013 | 8-729-100-66 | TRANSISTOR 2SC1623 |
| Q014 | 8-729-100-66 | TRANSISTOR 2SC1623 |
| Q015 | 8-729-100-66 | TRANSISTOR 2SC1623 |
| Q016 | 8-729-901-01 | TRANSISTOR DTC144EK |
| Q017 | 8-729-100-66 | TRANSISTOR 2SC1623 |
| Q018 | 8-729-100-66 | TRANSISTOR 2SC1623 |
| Q019 | 8-729-100-66 | TRANSISTOR 2SC1623 |
| Q020 | 8-729-100-66 | TRANSISTOR 2SC1623 |
| Q021 | 8-729-100-66 | TRANSISTOR 2SC1623 |
| Q022 | 8-729-100-66 | TRANSISTOR 2SC1623 |
| Q023 | 8-729-100-66 | TRANSISTOR 2SC1623 |
| Q024 | 8-729-100-66 | TRANSISTOR 2SC1623 |
| Q025 | 8-729-100-66 | TRANSISTOR 2SC1623 |
| Q026 | 8-729-100-66 | TRANSISTOR 2SC1623 |
| Q027 | 8-729-901-06 | TRANSISTOR DTA144EK |
| Q028 | 8-729-100-66 | TRANSISTOR 2SC1623 |
| Q029 | 8-729-100-66 | TRANSISTOR 2SC1623 |
| Q030 | 8-729-100-66 | TRANSISTOR 2SC1623 |
| Q031 | 8-729-100-66 | TRANSISTOR 2SC1623 |
| Q032 | 8-729-100-66 | TRANSISTOR 2SC1623 |
| Q033 | 8-729-100-66 | TRANSISTOR 2SC1623 |
| Q034 | 8-729-100-66 | TRANSISTOR 2SC1623 |
| Q035 | 8-729-100-66 | TRANSISTOR 2SC1623 |
| Q036 | 8-729-901-06 | TRANSISTOR DTA144EK |
| Q037 | 8-729-901-01 | TRANSISTOR DTC144EK |
| Q038 | 8-729-901-01 | TRANSISTOR DTC144EK |
| Q039 | 8-729-901-06 | TRANSISTOR DTA144EK |
| Q040 | 8-729-901-01 | TRANSISTOR DTC144EK |
| Q041 | 8-729-901-01 | TRANSISTOR DTC144EK |
| Q042 | 8-729-901-06 | TRANSISTOR DTA144EK |
| Q201 | 8-729-100-66 | TRANSISTOR 2SC1623 |
| Q202 | 8-729-100-66 | TRANSISTOR 2SC1623 |
| Q203 | 8-729-100-66 | TRANSISTOR 2SC1623 |
| Q204 | 8-729-100-66 | TRANSISTOR 2SC1623 |
| Q205 | 8-729-100-66 | TRANSISTOR 2SC1623 |
| Q206 | 8-729-100-66 | TRANSISTOR 2SC1623 |
| Q207 | 8-729-100-66 | TRANSISTOR 2SC1623 |
| Q208 | 8-729-100-66 | TRANSISTOR 2SC1623 |
| Q209 | 8-729-100-66 | TRANSISTOR 2SC1623 |
| Q210 | 8-729-100-66 | TRANSISTOR 2SC1623 |
| Q211 | 8-729-100-66 | TRANSISTOR 2SC1623 |
| Q212 | 8-729-100-66 | TRANSISTOR 2SC1623 |
| Q213 | 8-729-100-66 | TRANSISTOR 2SC1623 |
| Q214 | 8-729-100-66 | TRANSISTOR 2SC1623 |
| Q215 | 8-729-100-66 | TRANSISTOR 2SC1623 |
| Q216 | 8-729-100-66 | TRANSISTOR 2SC1623 |
| Q217 | 8-729-100-66 | TRANSISTOR 2SC1623 |
| Q218 | 8-729-320-17 | TRANSISTOR 2SA1122CD |
| Q219 | 8-729-100-66 | TRANSISTOR 2SC1623 |
| Q220 | 8-729-100-66 | TRANSISTOR 2SC1623 |
| Q221 | 8-729-320-17 | TRANSISTOR 2SA1122CD |
| Q222 | 8-729-100-66 | TRANSISTOR 2SC1623 |
| Q223 | 8-729-100-66 | TRANSISTOR 2SC1623 |



## YX-2P BOARD (CONDUCTOR SIDE)



ISTOR

RANSISTOR 2SC1623
RANSISTOR 2SC1623
RANSISTOR DTA144EK
RANSISTOR 2SC1623
RANSISTOR 2SC1623

RANSISTOR 2SC1623
RANSISTOR 2SC1623
RANSISTOR 2SC1623
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RANSISTOR 2SC1623
RANSISTOR 2SC1623

RANSISTOR DTC144EK
RANSISTOR 2SC1623
RANSISTOR 2SC1623
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RANSISTOR 2SC1623
RANSISTOR 2SC1623
RANSISTOR 2SC1623
RANSISTOR 2SC1623
RANSISTOR 2SC1623

| | | |
|---|---|---|
| Q026 | 8-729-100-66 | TRANSISTOR 2SC1623 |
| Q027 | 8-729-901-06 | TRANSISTOR DTA144EK |
| Q028 | 8-729-100-66 | TRANSISTOR 2SC1623 |
| Q029 | 8-729-100-66 | TRANSISTOR 2SC1623 |
| Q030 | 8-729-100-66 | TRANSISTOR 2SC1623 |
| Q031 | 8-729-100-66 | TRANSISTOR 2SC1623 |
| Q032 | 8-729-100-66 | TRANSISTOR 2SC1623 |
| Q033 | 8-729-100-66 | TRANSISTOR 2SC1623 |
| Q034 | 8-729-100-66 | TRANSISTOR 2SC1623 |
| Q035 | 8-729-100-66 | TRANSISTOR 2SC1623 |
| Q036 | 8-729-901-06 | TRANSISTOR DTA144EK |
| Q037 | 8-729-901-01 | TRANSISTOR DTC144EK |
| Q038 | 8-729-901-01 | TRANSISTOR DTC144EK |
| Q039 | 8-729-901-06 | TRANSISTOR DTA144EK |
| Q040 | 8-729-901-01 | TRANSISTOR DTC144EK |
| Q041 | 8-729-901-01 | TRANSISTOR DTC144EK |
| Q042 | 8-729-901-06 | TRANSISTOR DTA144EK |
| Q201 | 8-729-100-66 | TRANSISTOR 2SC1623 |
| Q202 | 8-729-100-66 | TRANSISTOR 2SC1623 |
| Q203 | 8-729-100-66 | TRANSISTOR 2SC1623 |
| Q204 | 8-729-100-66 | TRANSISTOR 2SC1623 |
| Q205 | 8-729-100-66 | TRANSISTOR 2SC1623 |
| Q206 | 8-729-100-66 | TRANSISTOR 2SC1623 |
| Q207 | 8-729-100-66 | TRANSISTOR 2SC1623 |
| Q208 | 8-729-100-66 | TRANSISTOR 2SC1623 |
| Q209 | 8-729-100-66 | TRANSISTOR 2SC1623 |
| Q210 | 8-729-100-66 | TRANSISTOR 2SC1623 |
| Q211 | 8-729-100-66 | TRANSISTOR 2SC1623 |
| Q212 | 8-729-100-66 | TRANSISTOR 2SC1623 |
| Q213 | 8-729-100-66 | TRANSISTOR 2SC1623 |
| Q214 | 8-729-100-66 | TRANSISTOR 2SC1623 |
| Q215 | 8-729-100-66 | TRANSISTOR 2SC1623 |
| Q216 | 8-729-100-66 | TRANSISTOR 2SC1623 |
| Q217 | 8-729-100-66 | TRANSISTOR 2SC1623 |
| Q218 | 8-729-320-17 | TRANSISTOR 2SA1122CD |
| Q219 | 8-729-100-66 | TRANSISTOR 2SC1623 |
| Q220 | 8-729-100-66 | TRANSISTOR 2SC1623 |
| Q221 | 8-729-320-17 | TRANSISTOR 2SA1122CD |
| Q222 | 8-729-100-66 | TRANSISTOR 2SC1623 |
| Q223 | 8-729-100-66 | TRANSISTOR 2SC1623 |

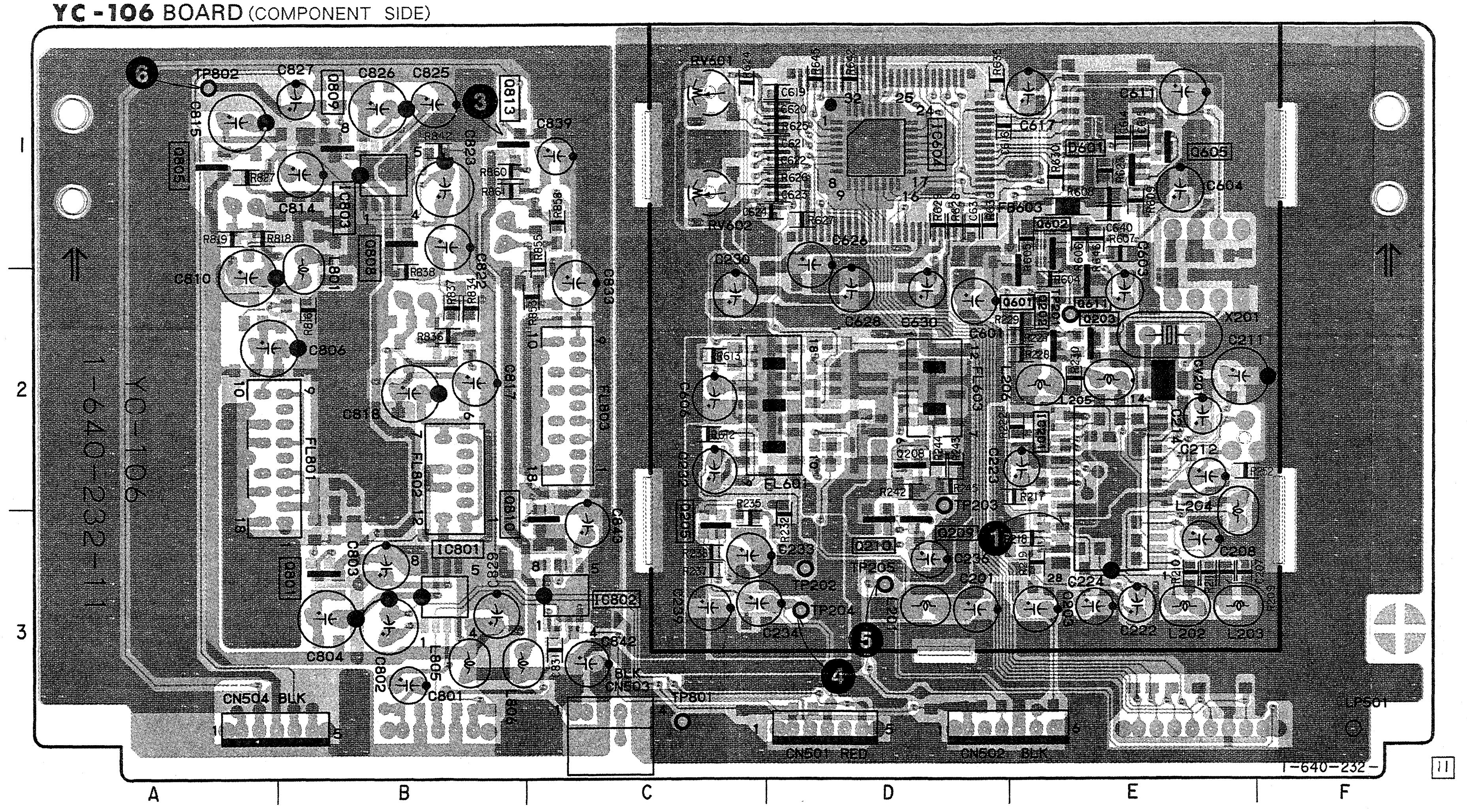
## YC-106 (VIDEO) PRINTED WIRING BOARD

— Ref. No. YC-106 BOARD: 12000 series —

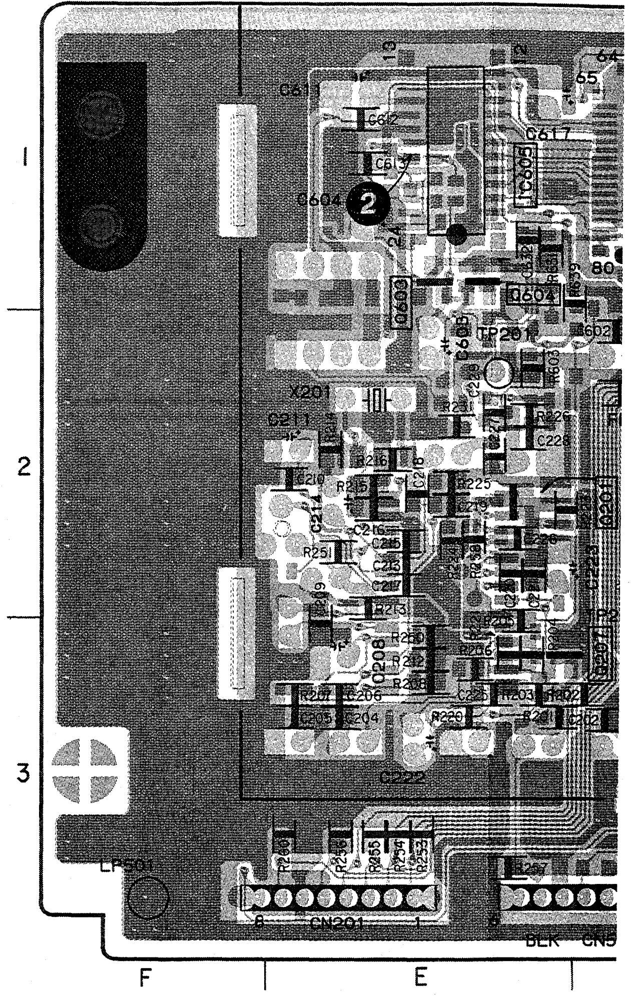
| YC-106 BOARD (COMPONENT SIDE) | |
|---|---|
| D601 | E-1 |
| IC201 | E-2 |
| IC604 | D-1 |
| IC801 | B-3 |
| IC802 | C-3 |
| IC803 | B-1 |
| Q202 | E-2 |
| Q203 | E-2 |
| Q205 | C-3 |
| Q209 | D-3 |
| Q210 | D-3 |
| Q601 | D-2 |
| Q602 | E-2 |
| Q605 | E-1 |
| Q611 | E-1 |
| Q801 | B-3 |
| Q805 | A-1 |
| Q808 | B-2 |
| Q809 | B-1 |
| Q810 | C-3 |
| Q813 | B-1 |

| YC-106 BOARD (CONDUCTOR SIDE) | |
|---|---|
| IC605 | E-1 |
| IC606 | E-4 |
| Q201 | E-2 |
| Q204 | D-2 |
| Q206 | C-3 |
| Q207 | E-3 |
| Q208 | D-2 |
| Q603 | E-1 |
| Q604 | E-1 |
| Q606 | C-2 |
| Q607 | C-2 |
| Q609 | D-2 |
| Q610 | D-2 |
| Q802 | A-2 |
| Q803 | A-1 |
| Q804 | A-1 |
| Q806 | B-2 |
| Q807 | B-2 |
| Q811 | B-2 |
| Q812 | B-1 |

**YC-106** BOARD (COMPONENT SIDE)



**YC-106** BOARD (CONDUCTOR SIDE)



* A-7062-844-A YC-106 BOARD, COMPLETE
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< DIODE >

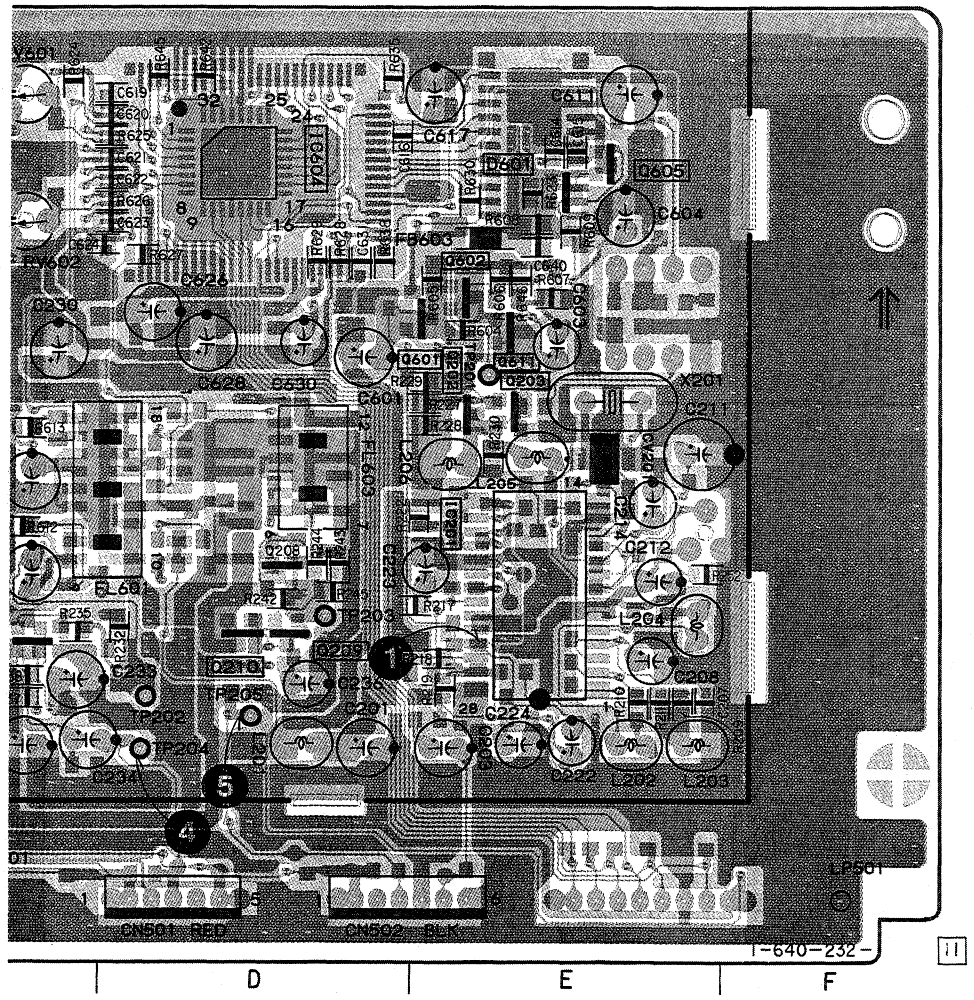
| | | | |
|---|---|---|---|
| D601 | 8-719-400-18 | DIODE | MA152WK |

< IC >

| | | | |
|---|---|---|---|
| IC201 | 8-759-603-54 | IC | M51271FP |
| IC604 | 8-759-506-97 | IC | BU5801K |
| IC605 | 8-752-334-55 | IC | CXD1175AM |
| IC606 | 8-752-342-61 | IC | CXD2105AQ |
| IC801 | 8-759-711-79 | IC | NJM2233BM |
| IC802 | 8-759-711-79 | IC | NJM2233BM |
| IC803 | 8-759-711-79 | IC | NJM2233BM |

< TRANSISTOR >

| | | | |
|---|---|---|---|
| Q201 | 8-729-100-66 | TRANSISTOR | 2SC1623 |
| Q202 | 8-729-100-66 | TRANSISTOR | 2SC1623 |
| Q203 | 8-729-100-66 | TRANSISTOR | 2SC1623 |
| Q204 | 8-729-100-66 | TRANSISTOR | 2SC1623 |
| Q205 | 8-729-100-66 | TRANSISTOR | 2SC1623 |
| Q206 | 8-729-100-66 | TRANSISTOR | 2SC1623 |
| Q207 | 8-729-100-66 | TRANSISTOR | 2SC1623 |
| Q208 | 8-729-100-66 | TRANSISTOR | 2SC1623 |
| Q209 | 8-729-100-66 | TRANSISTOR | 2SC1623 |
| Q210 | 8-729-100-66 | TRANSISTOR | 2SC1623 |
| Q601 | 8-729-100-66 | TRANSISTOR | 2SC1623 |
| Q602 | 8-729-216-22 | TRANSISTOR | 2SA1162 |
| Q603 | 8-729-100-66 | TRANSISTOR | 2SC1623 |
| Q604 | 8-729-100-66 | TRANSISTOR | 2SC1623 |
| Q605 | 8-729-216-22 | TRANSISTOR | 2SA1162 |
| Q606 | 8-729-100-66 | TRANSISTOR | 2SC1623 |
| Q607 | 8-729-216-22 | TRANSISTOR | 2SA1162 |
| Q609 | 8-729-216-22 | TRANSISTOR | 2SA1162 |
| Q610 | 8-729-216-22 | TRANSISTOR | 2SA1162 |
| Q611 | 8-729-216-22 | TRANSISTOR | 2SA1162 |
| Q801 | 8-729-100-66 | TRANSISTOR | 2SC1623 |
| Q802 | 8-729-100-66 | TRANSISTOR | 2SC1623 |
| Q803 | 8-729-100-66 | TRANSISTOR | 2SC1623 |
| Q804 | 8-729-100-66 | TRANSISTOR | 2SC1623 |
| Q805 | 8-729-100-66 | TRANSISTOR | 2SC1623 |
| Q806 | 8-729-100-66 | TRANSISTOR | 2SC1623 |
| Q807 | 8-729-100-66 | TRANSISTOR | 2SC1623 |
| Q808 | 8-729-100-66 | TRANSISTOR | 2SC1623 |
| Q809 | 8-729-100-66 | TRANSISTOR | 2SC1623 |
| Q810 | 8-729-100-66 | TRANSISTOR | 2SC1623 |
| Q811 | 8-729-100-66 | TRANSISTOR | 2SC1623 |
| Q812 | 8-729-100-66 | TRANSISTOR | 2SC1623 |
| Q813 | 8-729-100-66 | TRANSISTOR | 2SC1623 |


IC601
CN501 RED
CN502 BLK
LP501
1-640-232-
11
D
E
F

STOR >

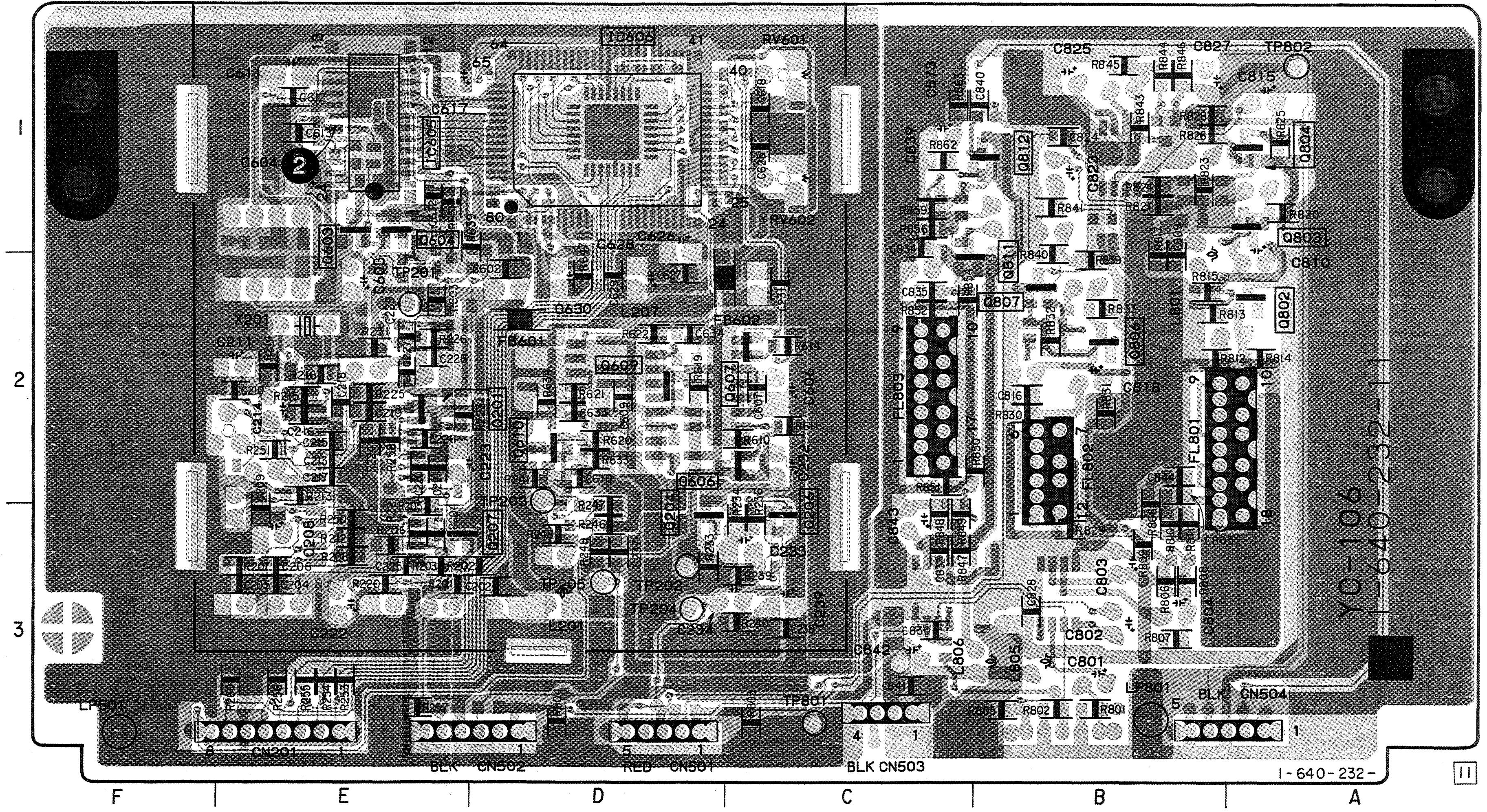
OR 2SC1623
OR 2SC1623
OR 2SC1623
OR 2SC1623
OR 2SC1623

OR 2SC1623
OR 2SC1623
OR 2SC1623
OR 2SC1623
OR 2SC1623

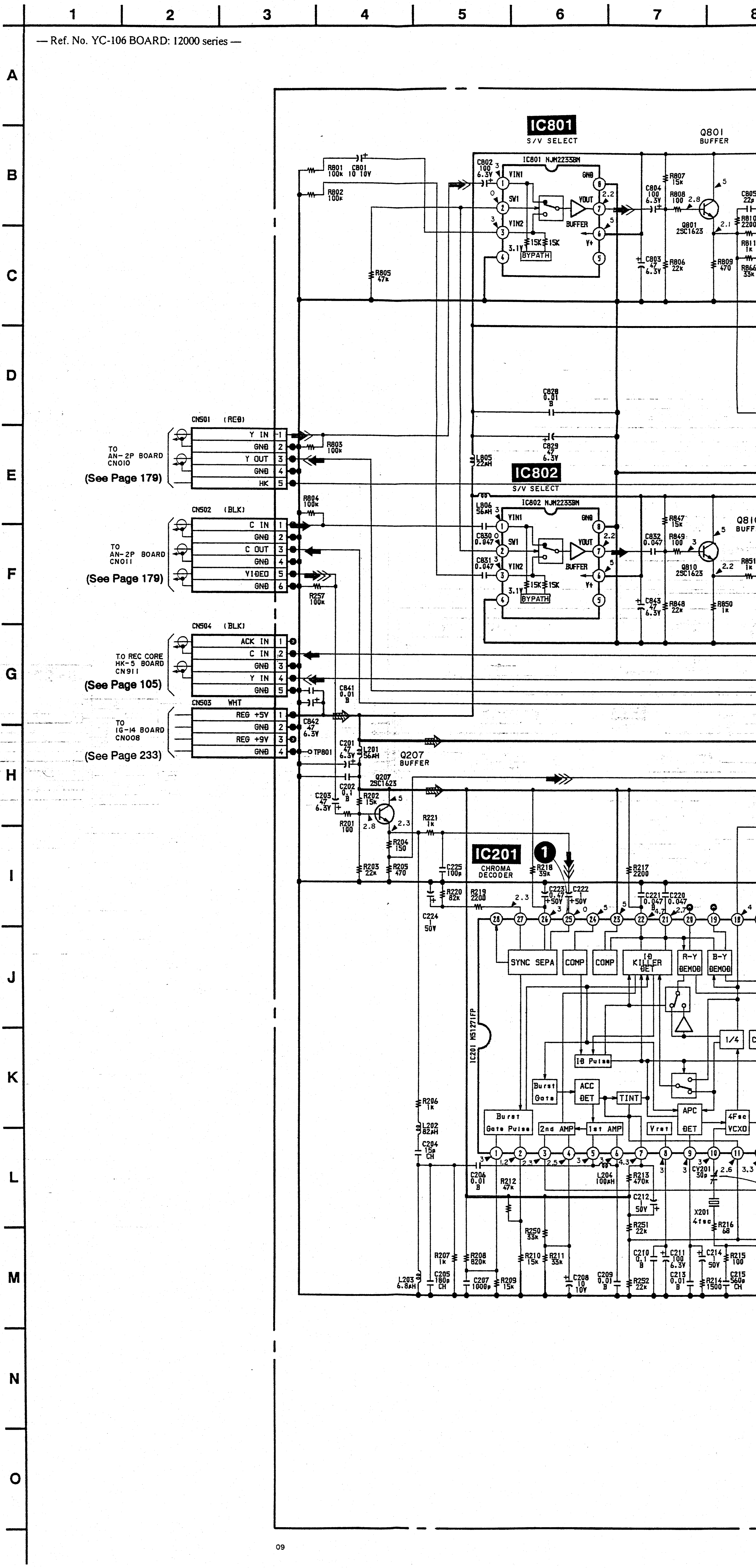
OR 2SC1623
OR 2SA1162
OR 2SC1623
OR 2SC1623
OR 2SA1162

| | | | |
|---|---|---|---|
| Q606 | 8-729-100-66 | TRANSISTOR | 2SC1623 |
| Q607 | 8-729-216-22 | TRANSISTOR | 2SA1162 |
| Q609 | 8-729-216-22 | TRANSISTOR | 2SA1162 |
| Q610 | 8-729-216-22 | TRANSISTOR | 2SA1162 |
| Q611 | 8-729-216-22 | TRANSISTOR | 2SA1162 |
| Q801 | 8-729-100-66 | TRANSISTOR | 2SC1623 |
| Q802 | 8-729-100-66 | TRANSISTOR | 2SC1623 |
| Q803 | 8-729-100-66 | TRANSISTOR | 2SC1623 |
| Q804 | 8-729-100-66 | TRANSISTOR | 2SC1623 |
| Q805 | 8-729-100-66 | TRANSISTOR | 2SC1623 |
| Q806 | 8-729-100-66 | TRANSISTOR | 2SC1623 |
| Q807 | 8-729-100-66 | TRANSISTOR | 2SC1623 |
| Q808 | 8-729-100-66 | TRANSISTOR | 2SC1623 |
| Q809 | 8-729-100-66 | TRANSISTOR | 2SC1623 |
| Q810 | 8-729-100-66 | TRANSISTOR | 2SC1623 |
| Q811 | 8-729-100-66 | TRANSISTOR | 2SC1623 |
| Q812 | 8-729-100-66 | TRANSISTOR | 2SC1623 |
| Q813 | 8-729-100-66 | TRANSISTOR | 2SC1623 |

## **YC-106** BOARD (CONDUCTOR SIDE)


1
2
3
IC606
RV601
RV602
X201
FB601
FB602
FL801
FL802
FL803
TP801
TP802
LP801
LP501
CN201
BLK CN502
RED CN501
BLK CN503
BLK CN504
YC-106
1-640-232-11
1-640-232-
11
F
E
D
C
B
A

## YC-106 (VIDEO) SCHEMATIC DIAGRAM


— Ref. No. YC-106 BOARD: 12000 series —

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A
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C
D
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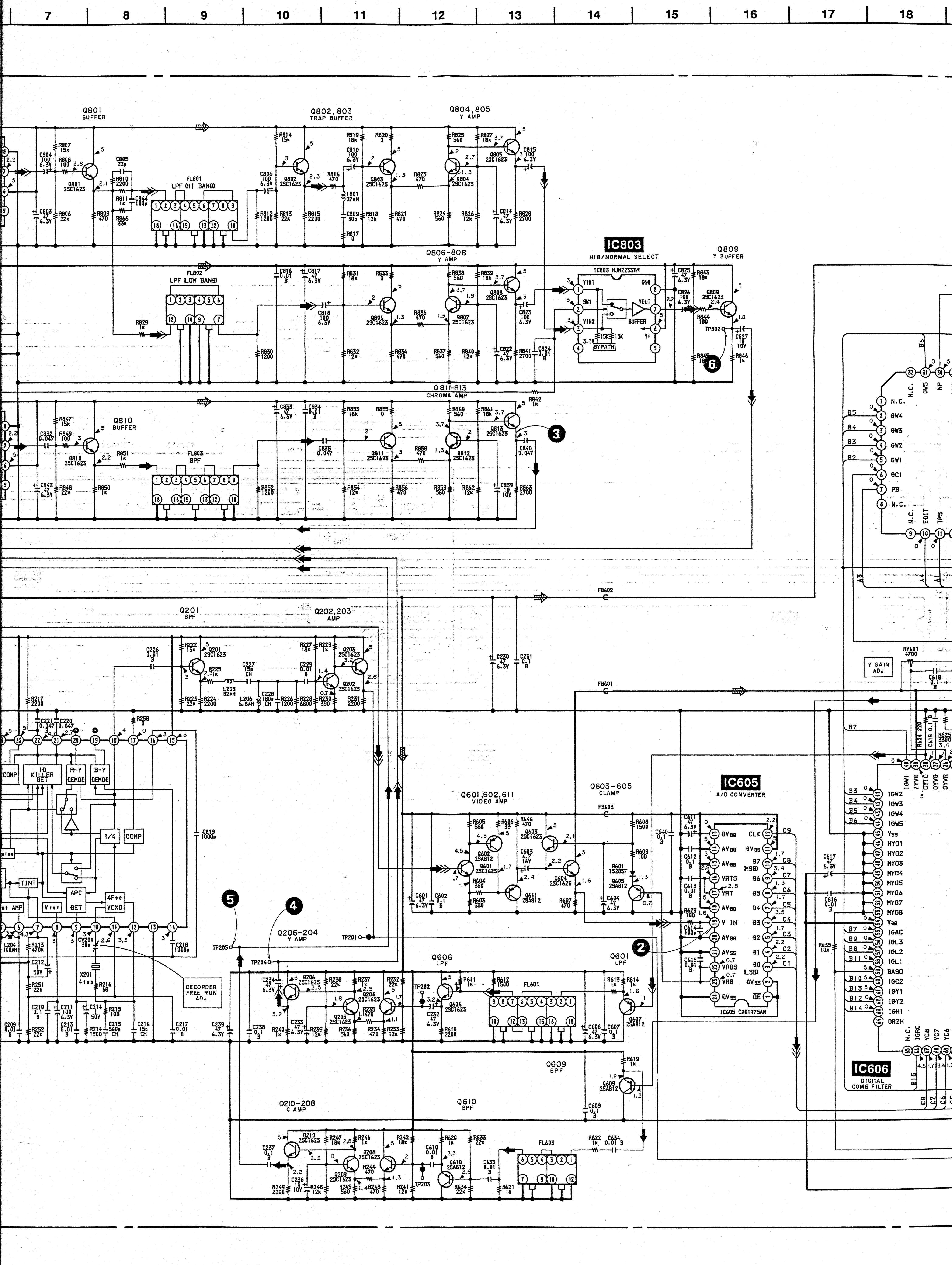
G
H
I
J
K
L
M
N
O
IC801
S/V SELECT
IC801 NJM2233BM
YIN1
SW1
YIN2
BYPATH
BUFFER
YOUT
GND
V+
Q801
BUFFER
Q801 2SC1623
IC802
S/V SELECT
IC802 NJM2233BM
Q810 2SC1623
CN501 (RED)
Y IN
GND
Y OUT
GND
HK
TO AN-2P BOARD CN010
(See Page 179)
CN502 (BLK)
C IN
GND
C OUT
GND
VIDEO
GND
TO AN-2P BOARD CN011
(See Page 179)
CN504 (BLK)
ACK IN
C IN
GND
Y IN
GND
TO REC CORE HK-5 BOARD CN911
(See Page 105)
CN503 WHT
REG +5V
GND
REG +9V
GND
TO IG-14 BOARD CN008
(See Page 233)
TP801
Q207
BUFFER
Q207 2SC1623
IC201
CHROMA DECODER
IC201 M51271FP
SYNC SEPA
COMP
COMP
ID KILLER DET
R-Y DEMOD
B-Y DEMOD
1/4
ID Pulse
Burst Gate
ACC DET
TINT
APC DET
4Fsc VCXO
Burst Gate Pulse
2nd AMP
1st AMP
Vref
X201 4fsc
CV201 50p
09


7
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16
17
18
Q801 BUFFER
Q802,803 TRAP BUFFER
Q804,805 Y AMP
FL801 LPF (HI BAND)
FL802 LPF (LOW BAND)
Q806-808 Y AMP
IC803
H18/NORMAL SELECT
IC803 NJM2233BM
YIN1
SW1
YIN2
BUFFER
YOUT
BYPATH
Q809 Y BUFFER
TP802
Q811-813 CHROMA AMP
Q810 BUFFER
FL803 BPF
FB602
FB601
FB603
Q201 BPF
Q202,203 AMP
ID KILLER DET
R-Y DEMOD
B-Y DEMOD
COMP
1/4
APC DET
4Fsc VCXO
TINT
Vref
X201 4fsc
CV201
DECORDER FREE RUN ADJ
TP205
TP204
TP201
Q206-204 Y AMP
Q601,602,611 VIDEO AMP
Q603-605 CLAMP
IC605
A/D CONVERTER
IC605 CX81175AM
Q606 LPF
FL601
Q601 LPF
TP202
Q609 BPF
Q610 BPF
Q210-208 C AMP
TP203
FL603
Y GAIN ADJ
RV601 4700
IC606
DIGITAL COMB FILTER
N.C.
GW4
GW3
GW2
GW1
GC1
PB
EDIT
TP9
IGW1
IGW2
IGW3
IGW4
IGW5
Vss
HYO1
HYO2
HYO3
HYO4
HYO5
HYO6
HYO7
HYO8
Vdd
IGC
IGL3
IGL2
IGL1
BASO
IGC2
IGY1
IGY2
IGH1
ORZH
CLK
AVdd
DVdd
VRTS
VRT
V IN
AVss
VRBS
VRB
DVss
OE
(MSB)
(LSB)
C1
C2
C3
C4
C5
C6
C7
C8
C9
2
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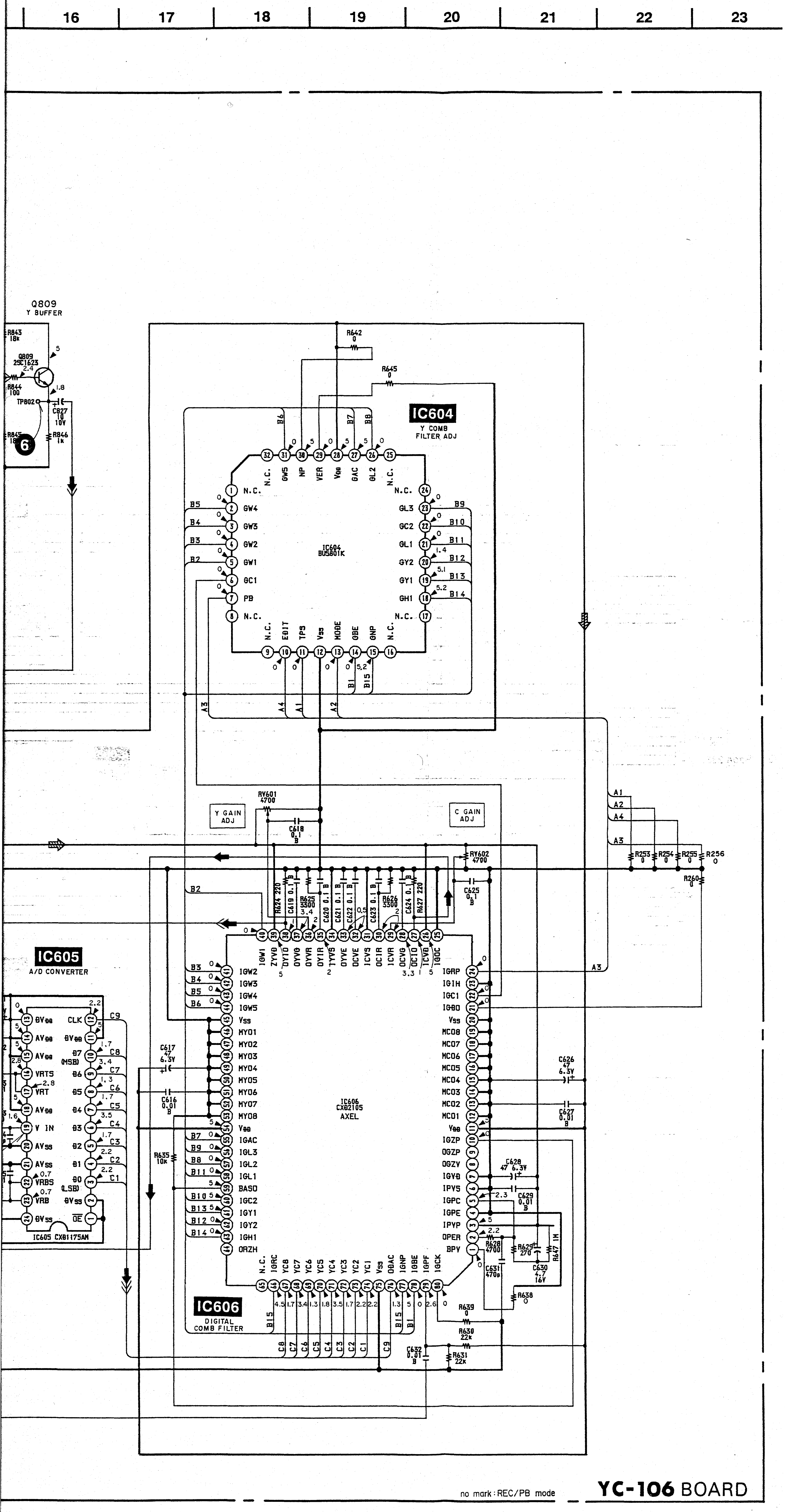
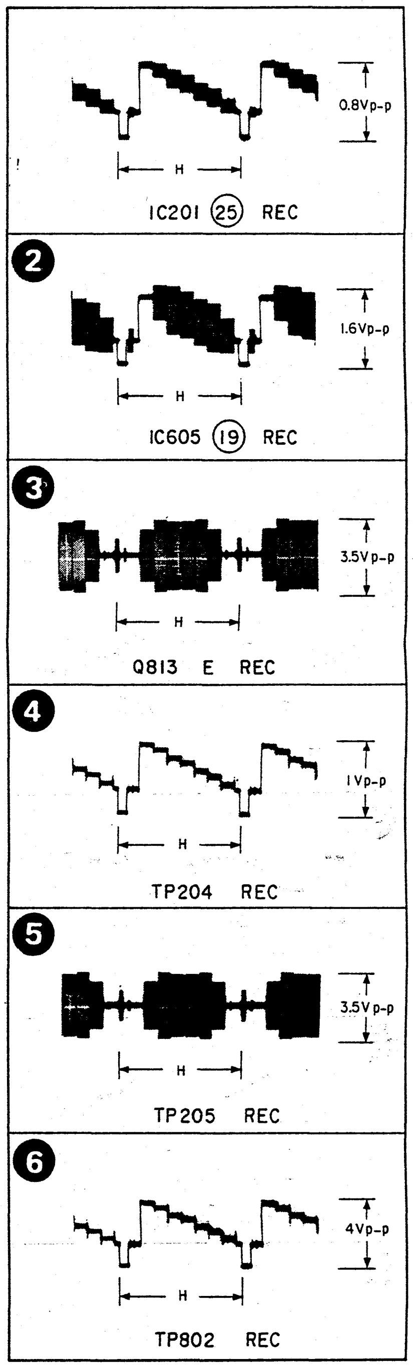

16
17
18
19
20
21
22
23
Q809
Y BUFFER
2SC1623
TP802
6
IC604
Y COMB FILTER ADJ
IC604 BU5801K
R642 0
R645 0
Y GAIN ADJ
C GAIN ADJ
RV601 4700
RV602 4700
IC605
A/D CONVERTER
IC605 CX81175AM
IC606
DIGITAL COMB FILTER
IC606 CXD2105 AXEL
R253 0
R254 0
R255 0
R256 0
R260 0
A1
A2
A3
A4

no mark : REC/PB mode

## YC-106 BOARD

## YC-106 BOARD

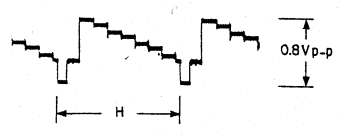


- **SIGNAL PATH**

| | VIDEO SIGNAL | | | AUDIO SIGNAL |
|---|---|---|---|---|
| | CHROMA | Y | Y/CHROMA/DATA | |
| REC | ➡ | ⇛ | ⇛ | |
| PB | | | | |

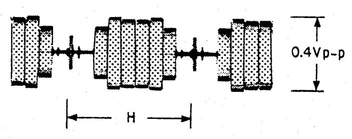
## **AN-2P** BOARD

❶



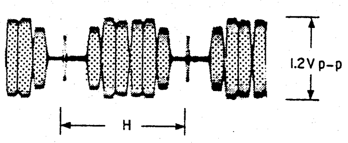
IC005 ⑦ PB

❷



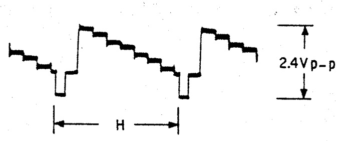
IC015 ⑦ PB

❸



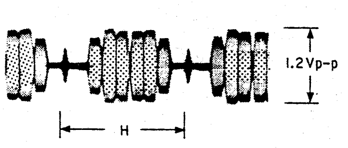
IC018 ⑨ PB (PB CORE)

❹



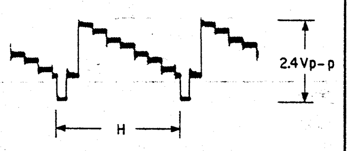
IC018 ⑫ PB (PB CORE)

❺



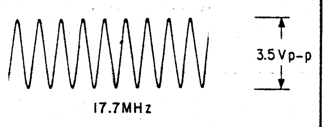
IC019 ⑨ PB

❻



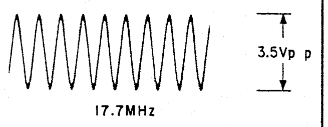
IC019 ⑫ PB

❼



IC027 ㉘ PB

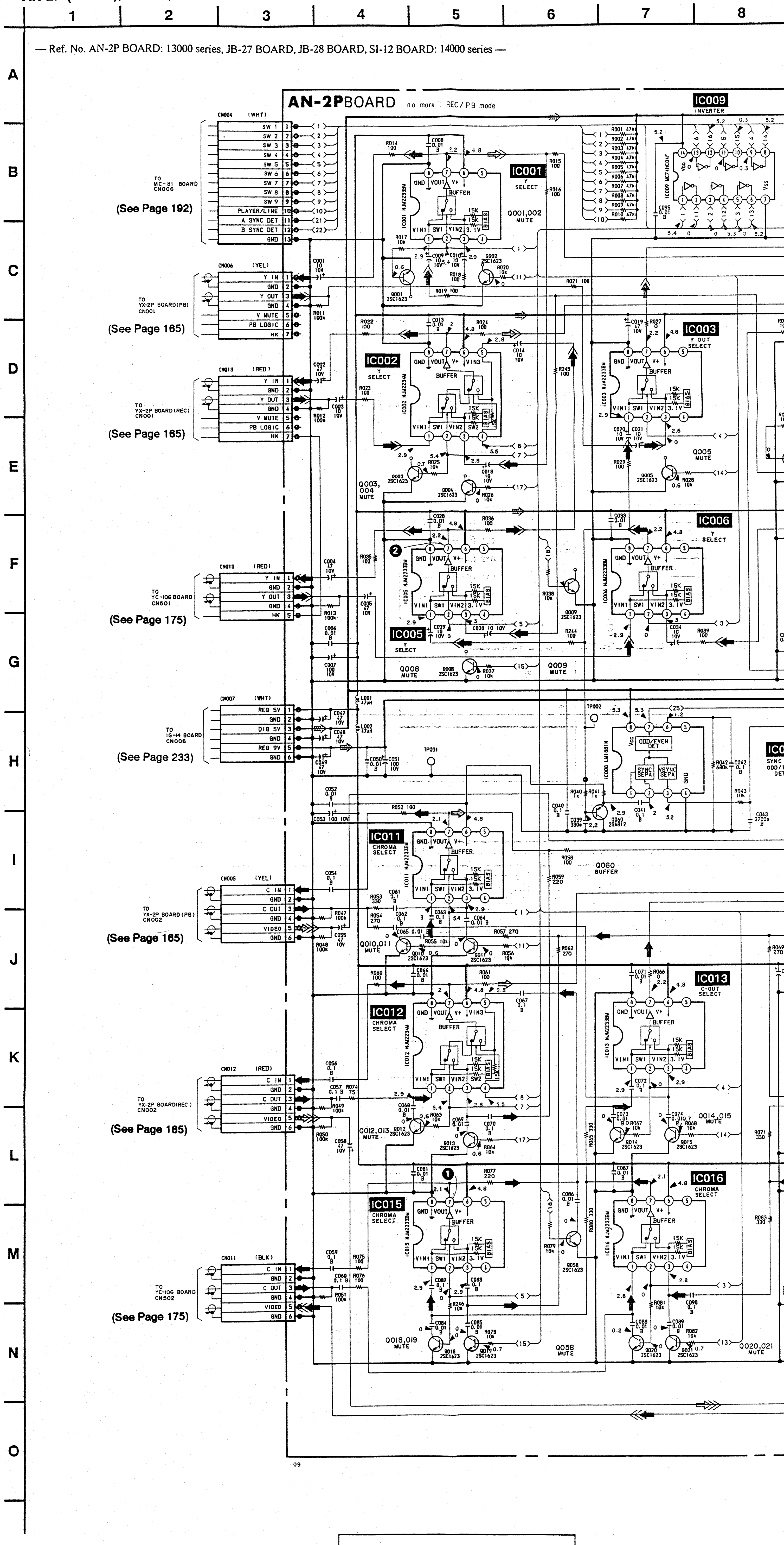
❽



IC028 ㉘ PB

## AN-2P (VIDEO), JB-28 (VIDEO, AUDIO JACK), JB-27 (MONITOR JACK), SI-12 (S VIDEO JACK) SCHEMATIC DIAGRAMS

— Ref. No. AN-2P BOARD: 13000 series, JB-27 BOARD, JB-28 BOARD, SI-12 BOARD: 14000 series —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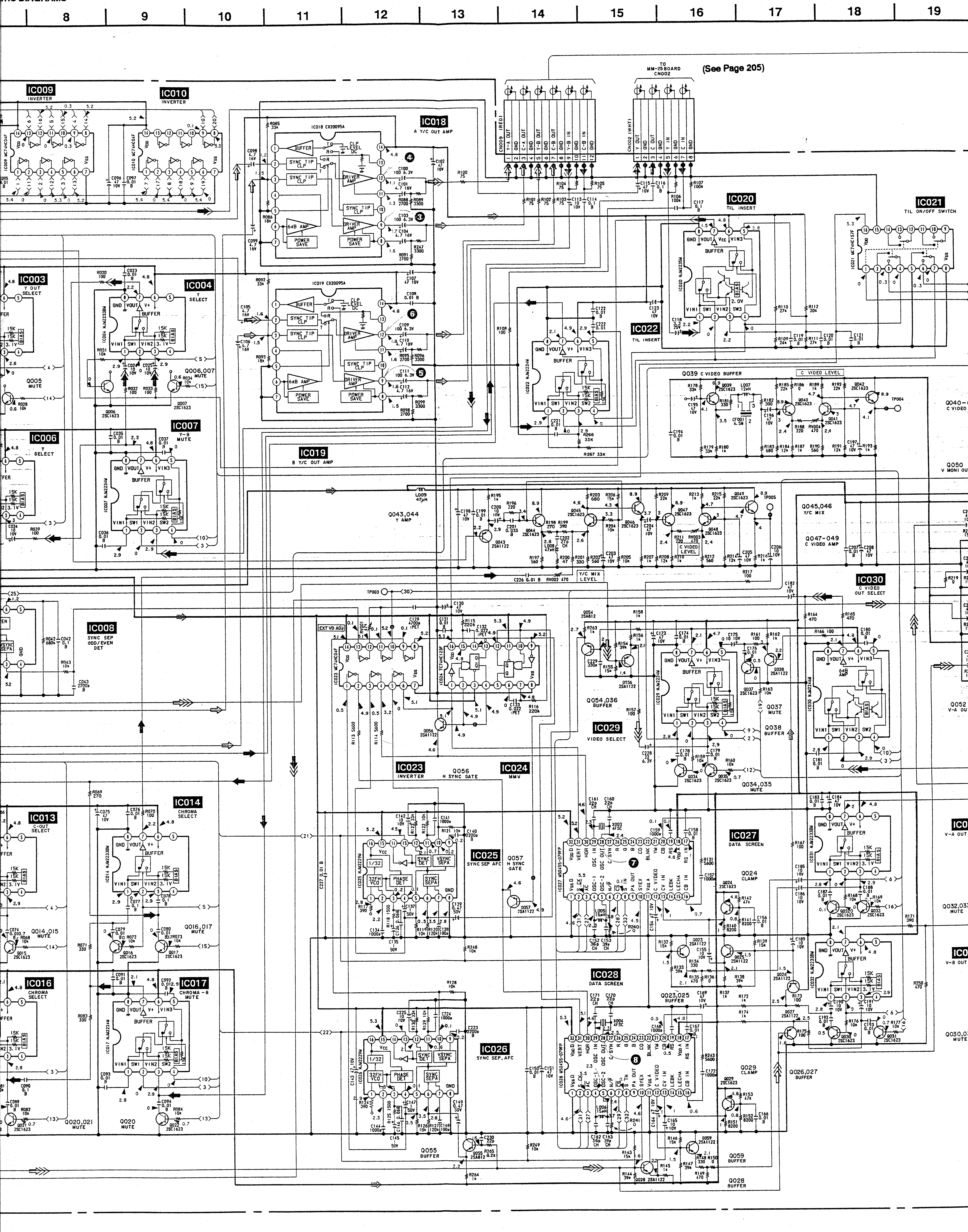
K
L
M
N
O
AN-2PBOARD
no mark : REC/PB mode
IC009
INVERTER
CN004 (WHT)
SW 1
SW 2
SW 3
SW 4
SW 5
SW 6
SW 7
SW 8
SW 9
PLAYER/LINE
A SYNC DET
B SYNC DET
GND
TO MC-81 BOARD CN006
(See Page 192)
CN006 (YEL)
Y IN
GND
Y OUT
GND
Y MUTE
PB LOGIC
HK
TO YX-2P BOARD(PB) CN001
(See Page 165)
CN013 (RED)
TO YX-2P BOARD(REC) CN001
(See Page 165)
CN010 (RED)
TO YC-106 BOARD CN501
(See Page 175)
CN007 (WHT)
REG 5V
GND
DIG 5V
GND
REG 9V
GND
TO IG-14 BOARD CN006
(See Page 233)
CN005 (YEL)
C IN
GND
C OUT
GND
VIDEO
GND
TO YX-2P BOARD(PB) CN002
(See Page 165)
CN012 (RED)
TO YX-2P BOARD(REC) CN002
(See Page 165)
CN011 (BLK)
TO YC-106 BOARD CN502
(See Page 175)
IC001
Y SELECT
IC001 NJM2233BM
BUFFER
BIAS
Q001,002 MUTE
IC002
Y SELECT
IC002 NJM2234M
Q003,004 MUTE
IC003
Y OUT SELECT
IC003 NJM2233BM
Q005 MUTE
IC005
Y SELECT
IC005 NJM2233BM
Q008 MUTE
Q009 MUTE
IC006
Y SELECT
IC006 NJM2233BM
IC008 LM1881M
ODD/EVEN DET
SYNC SEPA
VSYNC SEPA
TP001
TP002
Q060 BUFFER
IC011
CHROMA SELECT
IC011 NJM2233BM
Q010,011 MUTE
IC012
CHROMA SELECT
IC012 NJM2234M
Q012,013 MUTE
IC013
C-OUT SELECT
IC013 NJM2233BM
Q014,015 MUTE
IC015
CHROMA SELECT
IC015 NJM2233BM
Q018,019 MUTE
Q058 MUTE
IC016
CHROMA SELECT
IC016 NJM2233BM
Q020,021 MUTE
IC009 MC74HC04F
09

VIDEO VIDEO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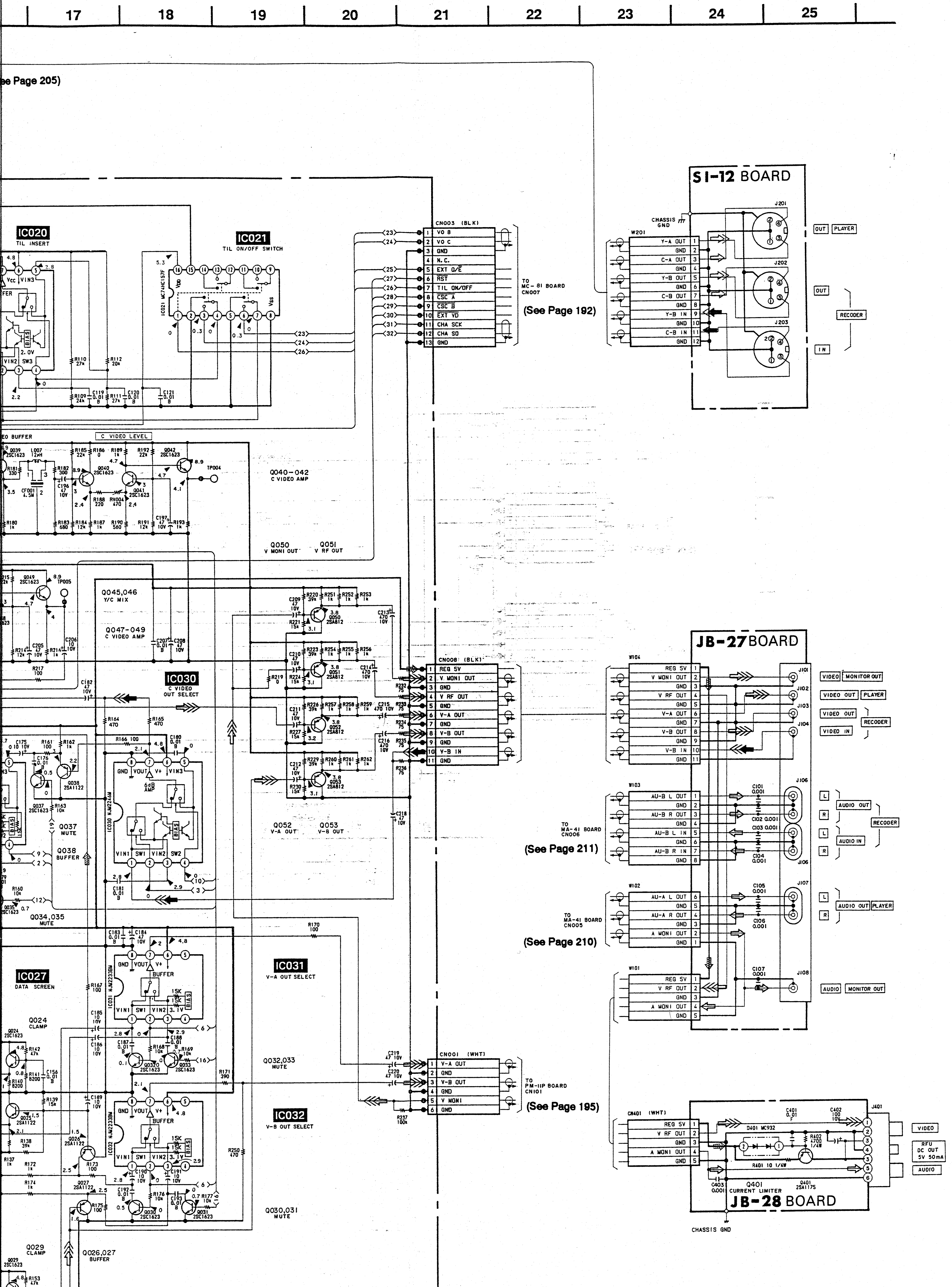
19
TO MM-25 BOARD CN002
(See Page 205)
CN009 (RED)
CN002 (WHT)
IC009 INVERTER
IC010 INVERTER
IC018 A Y/C OUT AMP
IC018 CX20095A
IC019 CX20095A
IC019 B Y/C OUT AMP
IC020 TIL INSERT
IC021 TIL ON/OFF SWITCH
IC022 TIL INSERT
IC003 Y OUT SELECT
IC004 Y SELECT
IC006 Y SELECT
IC007 Y-B MUTE
Q005 MUTE
Q006,007 MUTE
Q039 C VIDEO BUFFER
C VIDEO LEVEL
Q043,044 Y AMP
Q045,046 Y/C MIX
Q047-049 C VIDEO AMP
Y/C MIX LEVEL
IC008 SYNC SEP ODD/EVEN DET
EXT VD ADJ
IC023 INVERTER
Q056 H SYNC GATE
IC024 MMV
Q054,036 BUFFER
IC029 VIDEO SELECT
Q037 MUTE
Q038 BUFFER
Q034,035 MUTE
IC030 C VIDEO OUT SELECT
IC013 C-OUT SELECT
IC014 CHROMA SELECT
Q014,015 MUTE
Q016,017 MUTE
IC025 SYNC SEP AFC
Q057 H SYNC GATE
IC027 DATA SCREEN
Q024 CLAMP
IC031
IC032
Q032,033 MUTE
IC016 CHROMA SELECT
IC017 CHROMA-B MUTE
Q020,021 MUTE
Q020 MUTE
IC028 DATA SCREEN
Q023,025 BUFFER
IC026 SYNC SEP, AFC
Q055 BUFFER
Q029 CLAMP
Q026,027 BUFFER
Q059 BUFFER
Q028 BUFFER
Q040
C VIDEO
Q050
V MONI OUT
Q052
V-A OUT
V-A OUT
V-B OUT
Q030,031


17
18
19
20
21
22
23
24
25
(See Page 205)
IC020
TIL INSERT
IC021
TIL ON/OFF SWITCH
CN003 (BLK)
VO B
VO C
GND
N.C.
EXT O/E
RST
TIL ON/OFF
CSC A
CSC B
EXT VD
CHA SCK
CHA SO
GND
TO MC-81 BOARD CN007
(See Page 192)
SI-12 BOARD
CHASSIS GND
W201
Y-A OUT
C-A OUT
Y-B OUT
C-B OUT
Y-B IN
C-B IN
J201
J202
J203
OUT
PLAYER
OUT
RECODER
IN
C VIDEO LEVEL
Q040-042
C VIDEO AMP
Q050
V MONI OUT
Q051
V RF OUT
Q045,046
Y/C MIX
Q047-049
C VIDEO AMP
IC030
C VIDEO OUT SELECT
CN008 (BLK)
REG 5V
V MONI OUT
GND
V RF OUT
GND
V-A OUT
GND
V-B OUT
GND
V-B IN
GND
Q052
V-A OUT
Q053
V-B OUT
Q037
MUTE
Q038
BUFFER
Q034,035
MUTE
JB-27 BOARD
W104
J101
J102
J103
J104
VIDEO
MONITOR OUT
VIDEO OUT
PLAYER
VIDEO OUT
RECODER
VIDEO IN
W103
AU-B L OUT
AU-B R OUT
AU-B L IN
AU-B R IN
TO MA-41 BOARD CN006
(See Page 211)
J106
AUDIO OUT
AUDIO IN
RECODER
W102
AU-A L OUT
AU-A R OUT
A MONI OUT
TO MA-41 BOARD CN005
(See Page 210)
J107
AUDIO OUT
PLAYER
W101
J108
AUDIO
MONITOR OUT
IC027
DATA SCREEN
Q024
CLAMP
IC031
V-A OUT SELECT
Q032,033
MUTE
CN001 (WHT)
V-A OUT
GND
V-B OUT
GND
V MONI
GND
TO PM-11P BOARD CN101
(See Page 195)
IC032
V-B OUT SELECT
Q030,031
MUTE
Q026,027
BUFFER
Q029
CLAMP
Q059
BUFFER
Q028
BUFFER
CN401 (WHT)
REG 5V
V RF OUT
GND
A MONI OUT
GND
J401
D401 MC932
R401 10 1/4W
Q401
CURRENT LIMITER
Q401 2SA1175
JB-28 BOARD
VIDEO
RFU DC OUT 5V 50mA
AUDIO
CHASSIS GND

• **SIGNAL PATH**

| | VIDEO SIGNAL | | | AUDIO SIGNAL |
|---|---|---|---|---|
| | CHROMA | Y | Y/CHROMA/DATA | |
| REC | ➡ | ➡➡ | ➡➡➡ | ➡ |
| PB | ⇨ | ⇨⇨ | ⇨⇨⇨ | ⇨ |

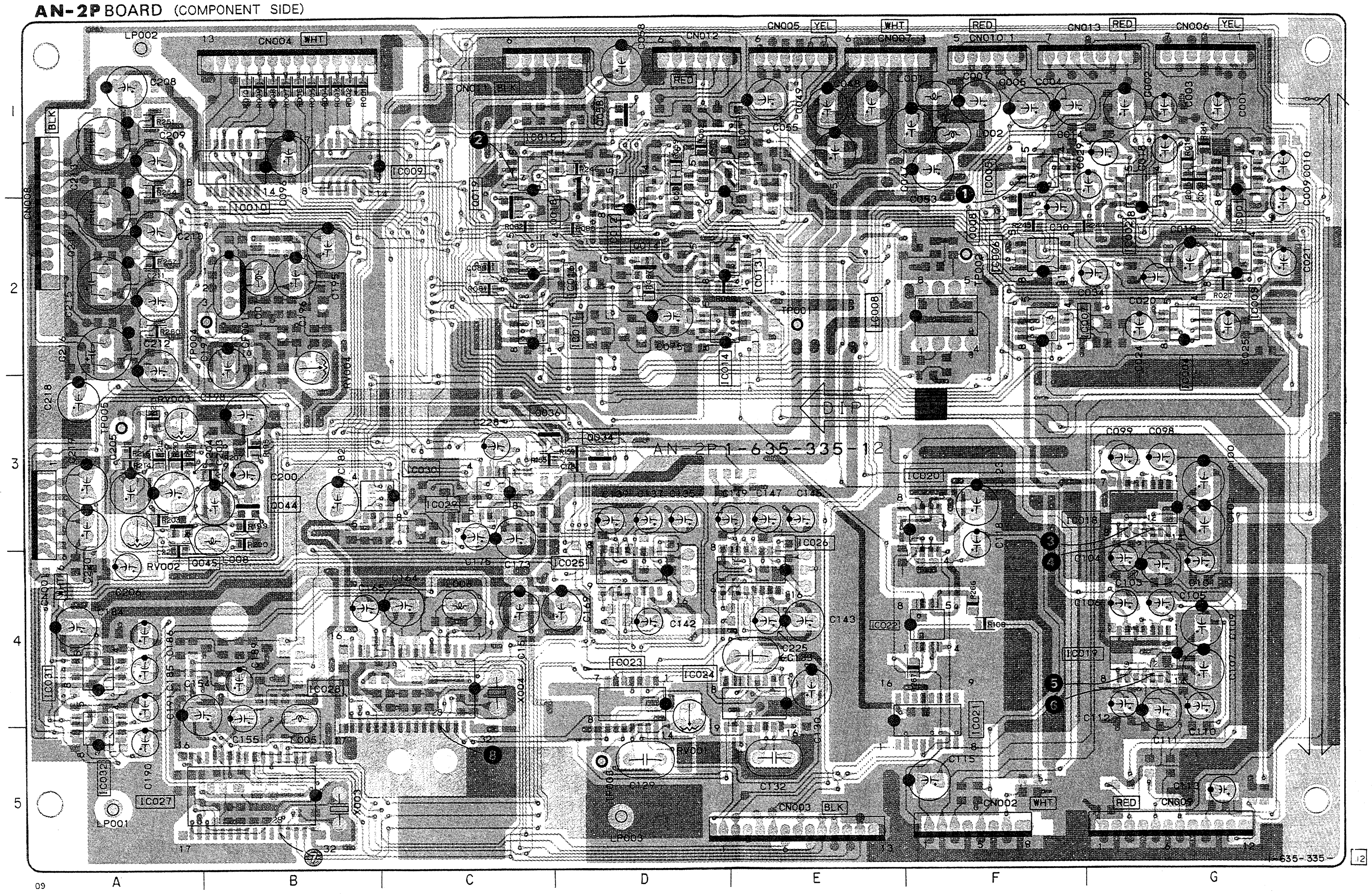
## AN-2P (VIDEO), JB-28 (VIDEO, AUDIO JACK), JB-27 (MONITOR JACK), SI-12 (S VIDEO JACK) PRINTED WIRING BOARDS

— Ref. No. AN-2P BOARD: 13000 series, JB-27 BOARD, JB-28 BOARD, SI-12 BOARD: 14000 series —

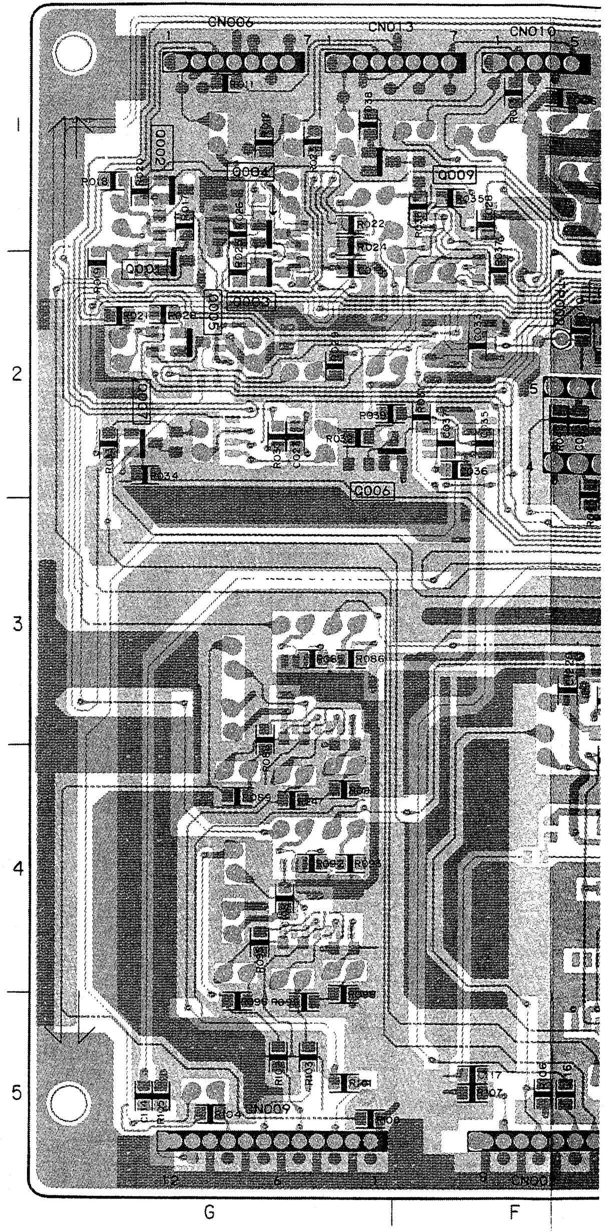
| AN-2P BOARD (COMPONENT SIDE) | |
|---|---|
| IC001 | G-1 |
| IC002 | G-1 |
| IC003 | G-2 |
| IC004 | G-2 |
| IC005 | F-1 |
| IC006 | F-2 |
| IC007 | F-2 |
| IC008 | F-2 |
| IC009 | B-1 |
| IC010 | B-1 |
| IC011 | D-1 |
| IC012 | D-1 |
| IC013 | D-2 |
| IC014 | D-2 |
| IC015 | C-1 |
| IC016 | C-2 |
| IC017 | C-2 |
| IC018 | G-3 |
| IC019 | G-4 |
| IC020 | F-2 |
| IC021 | F-4 |
| IC022 | F-4 |
| IC023 | D-4 |
| IC024 | E-4 |
| IC025 | D-4 |
| IC026 | E-4 |
| IC027 | B-5 |
| IC028 | C-4 |
| IC029 | C-3 |
| IC030 | C-3 |
| IC031 | A-4 |
| IC032 | A-5 |
| | |
| Q008 | F-2 |
| Q014 | D-2 |
| Q018 | D-1 |
| Q019 | C-2 |
| Q034 | D-3 |
| Q036 | C-3 |
| Q044 | B-3 |
| Q045 | A-3 |
| Q058 | D-1 |

| AN-2P BOARD (CONDUCTOR SIDE) | |
|---|---|
| Q001 | G-2 |
| Q002 | G-1 |
| Q003 | G-2 |
| Q004 | G-1 |
| Q005 | G-2 |
| Q006 | G-2 |
| Q007 | G-2 |
| Q009 | G-1 |
| Q010 | E-1 |
| Q011 | E-1 |
| Q012 | D-2 |
| Q013 | D-1 |
| Q015 | D-2 |
| Q016 | D-2 |
| Q017 | E-2 |
| Q020 | C-3 |
| Q021 | D-3 |
| Q022 | D-2 |
| Q023 | B-5 |
| Q024 | B-5 |
| Q025 | B-4 |
| Q025 | B-4 |
| Q026 | B-4 |
| Q027 | B-4 |
| Q028 | B-4 |
| Q029 | C-4 |
| Q030 | A-5 |
| Q031 | A-4 |
| Q032 | A-4 |
| Q033 | A-4 |
| Q035 | C-3 |
| Q037 | C-3 |
| Q038 | B-3 |
| Q039 | B-2 |
| Q040 | B-2 |
| Q041 | B-2 |
| Q042 | B-2 |
| Q043 | B-4 |
| Q046 | A-4 |
| Q047 | A-4 |
| Q048 | A-4 |
| Q049 | A-4 |
| Q050 | A-1 |
| Q051 | A-2 |
| Q052 | A-2 |
| Q053 | A-2 |
| Q054 | D-3 |
| Q055 | E-3 |
| Q056 | E-4 |
| Q057 | E-4 |
| Q059 | C-4 |
| Q060 | F-2 |

**AN-2P** BOARD (COMPONENT SIDE)



**AN-2P** BOARD (CONDUCTOR SIDE)



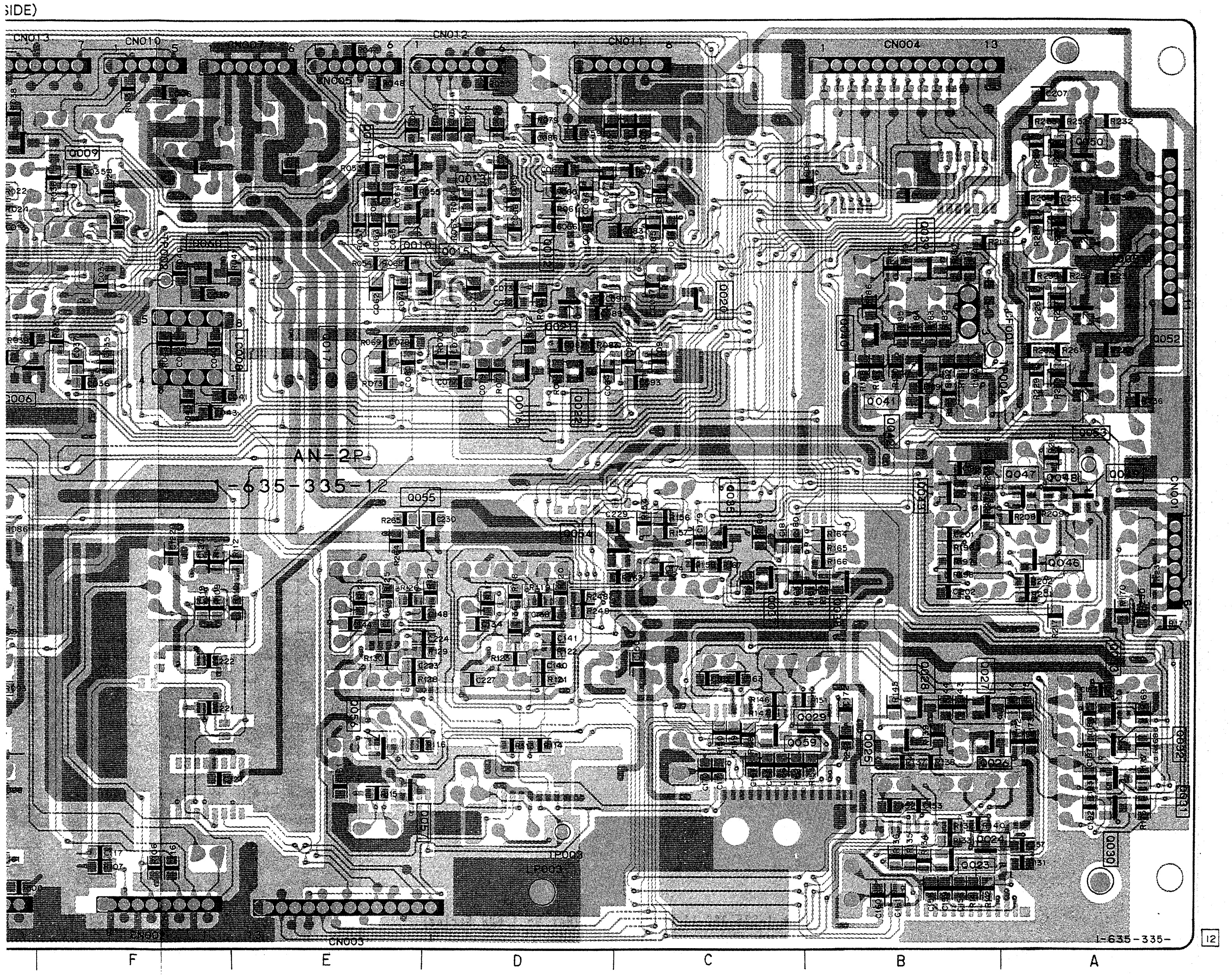
* A-7062-848-A AN-2 (P) BOARD, COMPLETE
************************
(Ref.No 13,000 Series)

< IC >

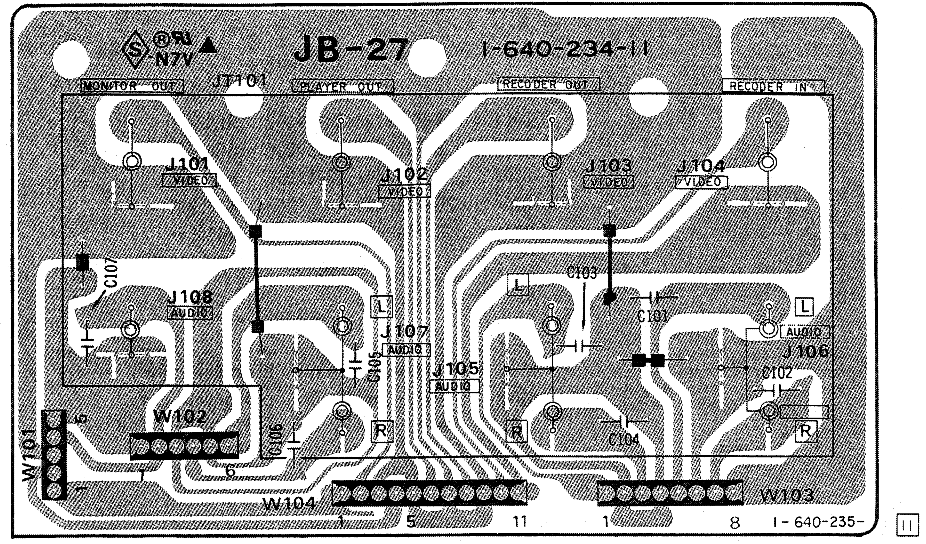
| | | | |
|---|---|---|---|
| IC001 | 8-759-711-79 | IC | NJM2233BM |
| IC002 | 8-759-711-71 | IC | NJM2234M |
| IC003 | 8-759-711-79 | IC | NJM2233BM |
| IC004 | 8-759-711-79 | IC | NJM2233BM |
| IC005 | 8-759-711-79 | IC | NJM2233BM |
| | | | |
| IC006 | 8-759-711-79 | IC | NJM2233BM |
| IC007 | 8-759-711-71 | IC | NJM2234M |
| IC008 | 8-759-972-26 | IC | LM1881N |
| IC009 | 8-759-032-11 | IC | MC74HC04AF |
| IC010 | 8-759-032-11 | IC | MC74HC04AF |
| IC011 | 8-759-711-79 | IC | NJM2233BM |
| IC012 | 8-759-711-71 | IC | NJM2234M |
| IC013 | 8-759-711-79 | IC | NJM2233BM |
| IC014 | 8-759-711-79 | IC | NJM2233BM |
| IC015 | 8-759-711-79 | IC | NJM2233BM |
| | | | |
| IC016 | 8-759-711-79 | IC | NJM2233BM |
| IC017 | 8-759-711-71 | IC | NJM2234M |
| IC018 | 8-752-009-51 | IC | CX20095A |
| IC019 | 8-752-009-51 | IC | CX20095A |
| IC020 | 8-759-710-29 | IC | NJM2235M |
| | | | |
| IC021 | 8-759-032-41 | IC | MC74HC157AF |
| IC022 | 8-759-711-71 | IC | NJM2234M |
| IC023 | 8-759-032-11 | IC | MC74HC04AF |
| IC024 | 8-759-206-28 | IC | TC74HC123F |
| IC025 | 8-759-710-61 | IC | NJM2229M |
| IC026 | 8-759-710-61 | IC | NJM2229M |
| IC027 | 8-759-630-81 | IC | M50455-079FP |
| IC028 | 8-759-630-81 | IC | M50455-079FP |
| IC029 | 8-759-711-71 | IC | NJM2234M |
| | | | |
| IC030 | 8-759-710-62 | IC | NJM2246M |
| IC031 | 8-759-711-79 | IC | NJM2233BM |
| IC032 | 8-759-711-79 | IC | NJM2233BM |

< TRANSISTOR >

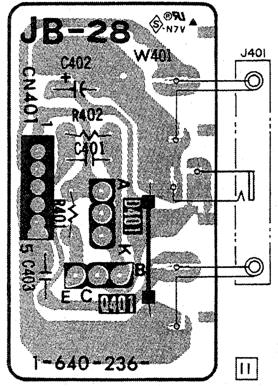
| | | | |
|---|---|---|---|
| Q001 | 8-729-100-66 | TRANSISTOR | 2SC1623 |
| Q002 | 8-729-100-66 | TRANSISTOR | 2SC1623 |
| Q003 | 8-729-100-66 | TRANSISTOR | 2SC1623 |
| Q004 | 8-729-100-66 | TRANSISTOR | 2SC1623 |
| Q005 | 8-729-100-66 | TRANSISTOR | 2SC1623 |
| | | | |
| Q006 | 8-729-100-66 | TRANSISTOR | 2SC1623 |
| Q007 | 8-729-100-66 | TRANSISTOR | 2SC1623 |
| Q008 | 8-729-100-66 | TRANSISTOR | 2SC1623 |
| Q009 | 8-729-100-66 | TRANSISTOR | 2SC1623 |
| Q010 | 8-729-100-66 | TRANSISTOR | 2SC1623 |
| | | | |
| Q011 | 8-729-100-66 | TRANSISTOR | 2SC1623 |
| Q012 | 8-729-100-66 | TRANSiSTOR | 2SC1623 |
| Q013 | 8-729-100-66 | TRANSISTOR | 2SC1623 |
| Q014 | 8-729-100-66 | TRANSISTOR | 2SC1623 |
| Q015 | 8-729-100-66 | TRANSISTOR | 2SC1623 |
| | | | |
| Q016 | 8-729-100-66 | TRANSISTOR | 2SC1623 |
| Q017 | 8-729-100-66 | TRANSISTOR | 2SC1623 |
| Q018 | 8-729-100-66 | TRANSISTOR | 2SC1623 |
| Q019 | 8-729-100-66 | TRANSISTOR | 2SC1623 |
| Q020 | 8-729-100-66 | TRANSISTOR | 2SC1623 |
| | | | |
| Q021 | 8-729-100-66 | TRANSISTOR | 2SC1623 |
| Q022 | 8-729-100-66 | TRANSISTOR | 2SC1623 |
| Q023 | 8-729-320-17 | TRANSISTOR | 2SA1122CD |
| Q024 | 8-729-100-66 | TRANSISTOR | 2SC1623 |
| Q025 | 8-729-320-17 | TRANSISTOR | 2SA1122CD |
| Q026 | 8-729-320-17 | TRANSISTOR | 2SA |
| Q027 | 8-729-320-17 | TRANSISTOR | 2SA |
| Q028 | 8-729-320-17 | TRANSISTOR | 2SA |
| Q029 | 8-729-100-66 | TRANSISTOR | 2SC |
| Q030 | 8-729-100-66 | TRANSISTOR | 2SC |
| | | | |
| Q031 | 8-729-100-66 | TRANSISTOR | 2SC |
| Q032 | 8-729-100-66 | TRANSISTOR | 2SC |
| Q033 | 8-729-100-66 | TRANSISTOR | 2SC |
| Q034 | 8-729-100-66 | TRANSISTOR | 2SC |
| Q035 | 8-729-100-66 | TRANSISTOR | 2SC |
| | | | |
| Q036 | 8-729-320-17 | TRANSISTOR | 2SA |
| Q037 | 8-729-100-66 | TRANSISTOR | 2SC |
| Q038 | 8-729-320-17 | TRANSISTOR | 2SA |
| Q039 | 8-729-100-66 | TRANSISTOR | 2SC |
| Q040 | 8-729-100-66 | TRANSISTOR | 2SC |


:IDE)
CN013
CN010
CN007
CN012
CN011
CN004
CN005
CN001
CN003
AN-2P
1-635-335-12
1-635-335-
12
F
E
D
C
B
A

## JB-27 BOARD


JB-27
1-640-234-11
N7V
MONITOR OUT
JT101
PLAYER OUT
RECODER OUT
RECODER IN
J101
VIDEO
J102
VIDEO
J103
VIDEO
J104
VIDEO
J108
AUDIO
J107
AUDIO
J105
AUDIO
J106
AUDIO
C107
C103
C101
C105
C106
C102
C104
L
R
W101
W102
W104
W103
1
5
11
8
1-640-235-
11

## JB-28 BOARD


JB-28
N7V
C402
W401
J401
CN401
R402
C401
D401
C403
Q401
E C B
VIDEO OUT
RFU DC OUT
AUDIO OUT
1-640-236-
11

* A-7071-453-A JB-28 BOARD, COMPLETE
**********************
(Ref.No 1,000 Series)

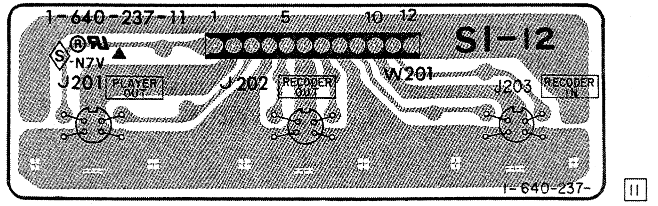
< DIODE >

| | | | |
|---|---|---|---|
| D401 | 8-719-016-42 | DIODE | MC932TP |

< TRANSISTOR >

| | | | |
|---|---|---|---|
| Q401 | 8-729-119-76 | TRANSISTOR | 2SA1175 |

## SI-12 BOARD


1-640-237-11
1
5
10
12
SI-12
N7V
J201
PLAYER OUT
J202
RECODER OUT
W201
J203
RECODER IN
1-640-237-
11

| | | |
|---|---|---|
| -320-17 | TRANSISTOR | 2SA1122CD |
| -320-17 | TRANSISTOR | 2SA1122CD |
| -320-17 | TRANSISTOR | 2SA1122CD |
| -100-66 | TRANSISTOR | 2SC1623 |
| -100-66 | TRANSISTOR | 2SC1623 |
| -100-66 | TRANSISTOR | 2SC1623 |
| -100-66 | TRANSISTOR | 2SC1623 |
| -100-66 | TRANSISTOR | 2SC1623 |
| -100-66 | TRANSISTOR | 2SC1623 |
| -100-66 | TRANSISTOR | 2SC1623 |
| 9-320-17 | TRANSISTOR | 2SA1122CD |
| 9-100-66 | TRANSISTOR | 2SC1623 |
| 9-320-17 | TRANSISTOR | 2SA1122CD |
| 9-100-66 | TRANSISTOR | 2SC1623 |
| 9-100-66 | TRANSISTOR | 2SC1623 |

| | | | |
|---|---|---|---|
| Q041 | 8-729-100-66 | TRANSISTOR | 2SC1623 |
| Q042 | 8-729-100-66 | TRANSISTOR | 2SC1623 |
| Q043 | 8-729-320-17 | TRANSISTOR | 2SA1122CD |
| Q044 | 8-729-100-66 | TRANSISTOR | 2SC1623 |
| Q045 | 8-729-100-66 | TRANSISTOR | 2SC1623 |
| Q046 | 8-729-100-66 | TRANSISTOR | 2SC1623 |
| Q047 | 8-729-100-66 | TRANSISTOR | 2SC1623 |
| Q048 | 8-729-100-66 | TRANSISTOR | 2SC1623 |
| Q049 | 8-729-100-66 | TRANSISTOR | 2SC1623 |
| Q050 | 8-729-216-22 | TRANSISTOR | 2SA1162 |
| Q051 | 8-729-216-22 | TRANSISTOR | 2SA1162 |
| Q052 | 8-729-216-22 | TRANSISTOR | 2SA1162 |
| Q053 | 8-729-216-22 | TRANSISTOR | 2SA1162 |
| Q054 | 8-729-216-22 | TRANSISTOR | 2SA1162 |

| | | | |
|---|---|---|---|
| Q055 | 8-729-216-22 | TRANSISTOR | 2SA1162 |
| Q056 | 8-729-320-17 | TRANSISTOR | 2SA1122CD |
| Q057 | 8-729-320-17 | TRANSISTOR | 2SA1122CD |
| Q058 | 8-729-100-66 | TRANSISTOR | 2SC1623 |
| Q059 | 8-729-320-17 | TRANSISTOR | 2SA1122CD |
| Q060 | 8-729-216-22 | TRANSISTOR | 2SA1162 |

* A-7062-843-A MC-81 BOARD, COMPLETE
*********************
(Ref. No 15, 000 Series)

< DIODE >

| | | | |
|---|---|---|---|
| D001 | 8-719-105-64 | DIODE | RD4. 3M |
| D002 | 8-719-981-01 | DIODE | ERA81-004 |
| D003 | 8-719-400-18 | DIODE | MA152WK |
| D004 | 8-719-400-18 | DIODE | MA152WK |
| D005 | 8-719-400-18 | DIODE | MA152WK |

< IC >

| | | | |
|---|---|---|---|
| IC001 | 8-759-320-29 | IC | HD63B05Z0-A28F |
| IC002 | 8-759-154-29 | IC | uPD75108G |
| IC003 | 8-759-149-66 | IC | uPD75108G-F52-1B |
| IC004 | 8-752-331-00 | IC | CXK5864BM-12L |
| IC005 | 8-759-516-74 | IC | MB90061 |
| IC006 | 8-759-048-71 | IC | LH53259-73 |
| IC007 | 8-752-331-00 | IC | CXK5864BM-12L |
| IC008 | 8-759-916-25 | IC | SN74HC32AN |
| IC009 | 8-759-926-67 | IC | SN74HC374ANS |
| IC010 | 8-759-926-67 | IC | SN74HC374ANS |
| IC011 | 8-759-926-48 | IC | SN74HC244ANS |
| IC012 | 8-759-926-67 | IC | SN74HC374ANS |
| IC013 | 8-759-926-67 | IC | SN74HC374ANS |
| IC014 | 8-759-926-48 | IC | SN74HC244ANS |
| IC015 | 8-759-926-48 | IC | SN74HC244ANS |
| IC016 | 8-759-927-46 | IC | SN74HC00ANS |
| IC017 | 8-759-926-48 | IC | SN74HC244ANS |
| IC018 | 8-759-937-56 | IC | S-8054ALB-LM-S |
| IC019 | 8-759-916-25 | IC | SN74HC32AN |
| IC020 | 8-759-916-25 | IC | SN74HC32AN |
| IC021 | 8-759-926-05 | IC | SN74HC125NS |
| IC022 | 8-759-926-11 | IC | SN74HC138ANS |
| IC023 | 8-759-926-12 | IC | SN74HC139ANS |
| IC024 | 8-759-926-05 | IC | SN74HC125NS |
| IC025 | 8-759-925-74 | IC | SN74HC04ANS |
| IC026 | 8-759-925-76 | IC | SN74HC08ANS |
| IC027 | 8-759-926-05 | IC | SN74HC125NS |
| IC028 | 8-759-145-50 | IC | uPD71051GB-3B4 |
| IC029 | 8-759-926-74 | IC | SN74HC393ANS |
| IC030 | 8-759-009-10 | IC | MC14069UBF |
| IC032 | 8-759-009-51 | IC | MC14538BF |
| IC033 | 8-759-916-25 | IC | SN74HC32AN |
| IC034 | 8-759-206-28 | IC | MC74HC123AF |
| IC035 | 8-759-206-28 | IC | MC74HC123AF |
| IC036 | 8-759-925-90 | IC | SN74HC74ANS |
| IC037 | 8-759-011-65 | IC | MC74HC4053F |
| IC037 | 8-759-230-XX | IC | TC74HC4053AF |
| IC038 | 8-759-926-67 | IC | SN74HC374ANS |
| IC039 | 8-759-937-56 | IC | S-8054ALB-LM-S |
| IC040 | 8-759-206-28 | IC | MC74HC123AF |

< TRANSISTOR >

| | | | |
|---|---|---|---|
| Q001 | 8-729-216-22 | TRANSISTOR | 2SA1162 |
| Q002 | 8-729-100-66 | TRANSISTOR | 2SC1623 |
| Q003 | 8-729-901-01 | TRANSISTOR | DTC144EK |
| Q004 | 8-729-901-01 | TRANSISTOR | DTC144EK |
| Q005 | 8-729-901-06 | TRANSISTOR | DTA144EK |
| Q006 | 8-729-901-01 | TRANSISTOR | DTC144EK |
| Q007 | 8-729-100-66 | TRANSISTOR | 2SC1623 |
| Q010 | 8-729-901-01 | TRANSISTOR | DTC144EK |
| Q011 | 8-729-901-01 | TRANSISTOR | DTC144EK |
| Q012 | 8-729-100-66 | TRANSISTOR | 2SC1623 |

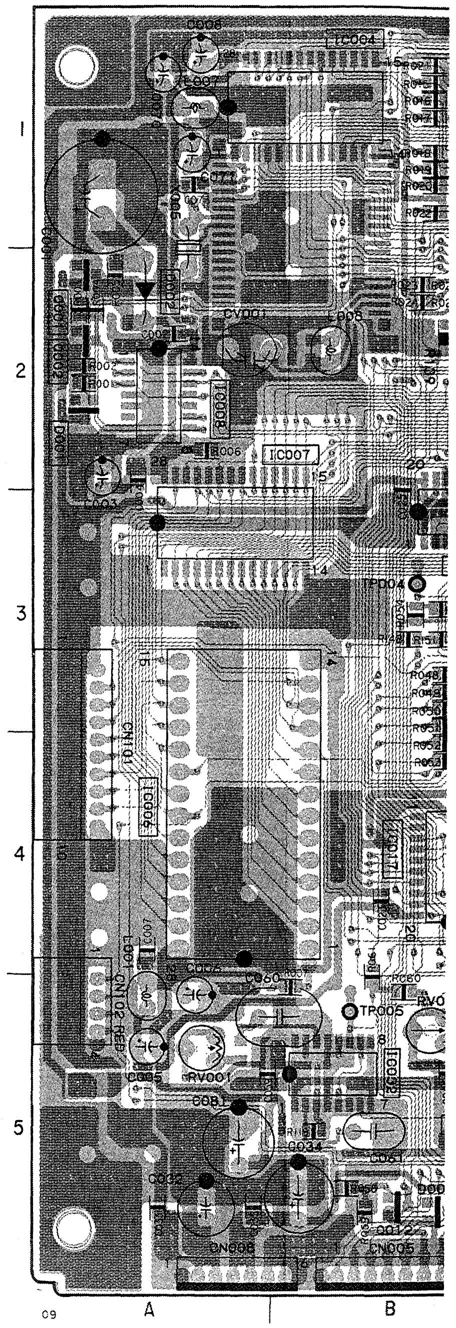
## MC-81 (MAIN CONTROL), CO-5 (DATA SCREEN SWITCH, IN/OUT

— Ref. No. MC-81 BOARD, CO-5 BOARD, CO-6 BOARD, TC-16 BOARD: 15000 series —

| MC-81 BOARD (COMPONENT SIDE) | |
|---|---|
| D001 | A-2 |
| D002 | A-2 |
| D003 | C-4 |
| D004 | B-5 |
| D005 | C-5 |
| IC004 | B-1 |
| IC006 | A-4 |
| IC007 | B-2 |
| IC008 | A-2 |
| IC009 | D-3 |
| IC010 | D-3 |
| IC011 | D-2 |
| IC012 | D-1 |
| IC013 | D-2 |
| IC014 | C-2 |
| IC015 | B-3 |
| IC016 | C-4 |
| IC017 | B-4 |
| IC018 | C-4 |
| IC019 | E-2 |
| IC020 | E-2 |
| IC021 | E-3 |
| IC022 | E-2 |
| IC023 | E-2 |
| IC024 | F-4 |
| IC025 | E-3 |
| IC026 | E-3 |
| IC027 | F-5 |
| IC029 | E-4 |
| IC030 | E-4 |
| IC032 | B-5 |
| IC033 | C-5 |
| IC034 | D-5 |
| IC035 | B-5 |
| IC036 | C-4 |
| IC037 | C-5 |
| IC038 | F-2 |
| IC039 | E-3 |
| IC040 | E-5 |
| Q001 | A-2 |
| Q002 | A-2 |
| Q003 | E-2 |
| Q004 | E-2 |
| Q005 | D-1 |
| Q006 | D-1 |
| Q007 | E-3 |
| Q012 | B-5 |

| MC-81 BOARD (CONDUCTOR SIDE) | |
|---|---|
| IC001 | C-3 |
| IC002 | B-1 |
| IC003 | E-2 |
| IC005 | B-1 |
| IC028 | D-3 |
| Q010 | F-4 |
| Q011 | F-3 |

**MC-81** BOARD (COMPONENT SIDE)



* 1-635-322-11 CO-6 BOARD (Ref. No 1, 600 Series)
***********

< DIODE >

| | | | |
|---|---|---|---|
| D501 | 8-719-106-09 | DIODE | RD6. 2M-T1B3 |

* 1-635-321-11 CO-5 BOARD (Ref. No 15, 000 Series)
***********

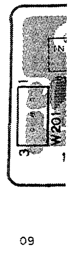
< DIODE >

| | | | |
|---|---|---|---|
| D201 | 8-719-800-76 | DIODE | 1SS226 |

< TRANSISTOR >

| | | | |
|---|---|---|---|
| Q201 | 8-729-901-01 | TRANSISTOR | DTC144EK |
| Q202 | 8-729-901-01 | TRANSISTOR | DTC144EK |

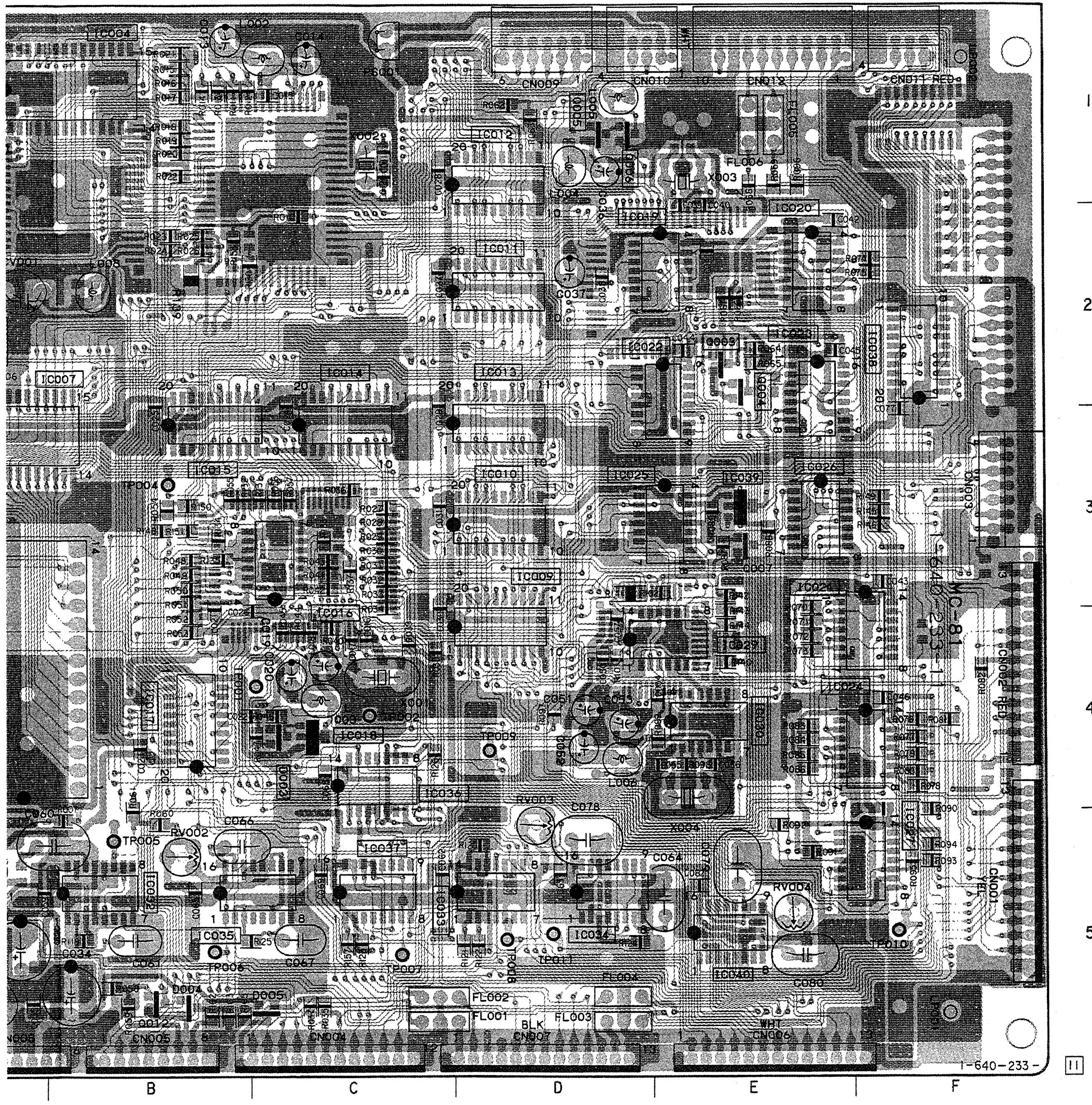
CO-



## I SWITCH, IN/OUT POINT ADJ), CO-6 (PAUSE OUT JACK), TC-16 (TITLER JACK) PRINTED WIRING BOARDS

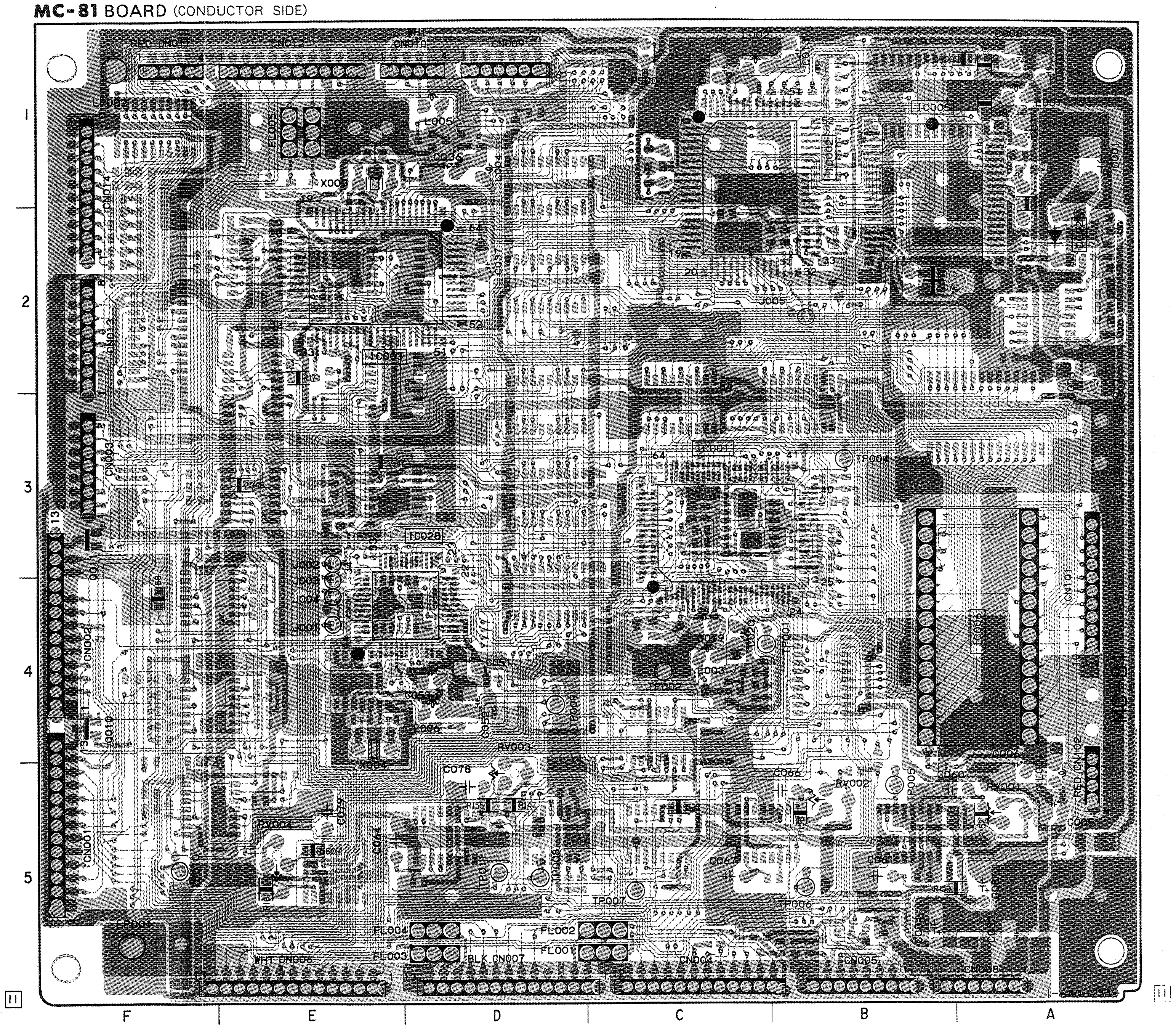
5 BOARD: 15000 series —

MPONENT SIDE)



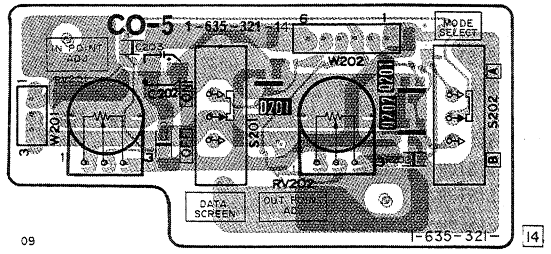
MC-81
1-640-233-
1
2
3
4
5
B
C
D
E
F

**MC-81** BOARD (CONDUCTOR SIDE)



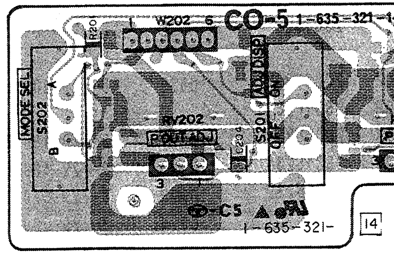
MC-81
1
2
3
4
5
F
E
D
C
B
A

**CO-5** BOARD (COMPONENT SIDE)



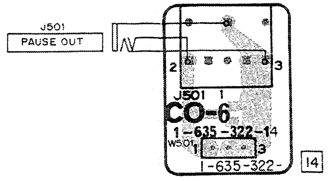
CO-5 1-635-321-14
MODE SELECT
IN POINT ADJ
W201
W202
S201
S202
RV202
DATA SCREEN
OUT POINT ADJ
1-635-321-
14

**CO-5** BOARD (CONDUCTOR SIDE)



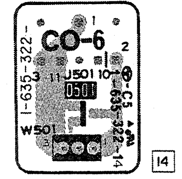
CO-5 1-635-321-14
W202
MODE SEL
S202
RV202
OUT ADJ
S201
RV201
IN ADJ
W201
1-635-321-
14

**CO-6** BOARD (COMPONENT SIDE)



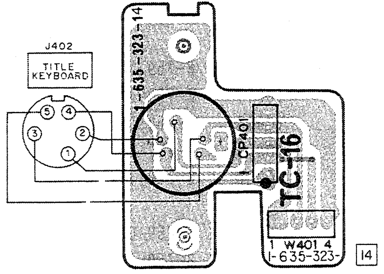
J501
PAUSE OUT
CO-6
1-635-322-14
W501
1-635-322-
14

**CO-6** BOARD (CONDUCTOR SIDE)



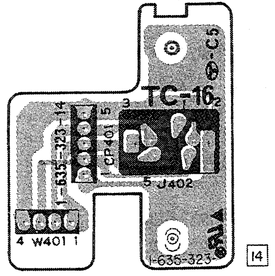
CO-6
1-635-322-
W501
14

**TC-16** BOARD (COMPONENT SIDE)



J402
TITLE KEYBOARD
1-635-323-14
CP401
TC-16
W401
1-635-323-
14

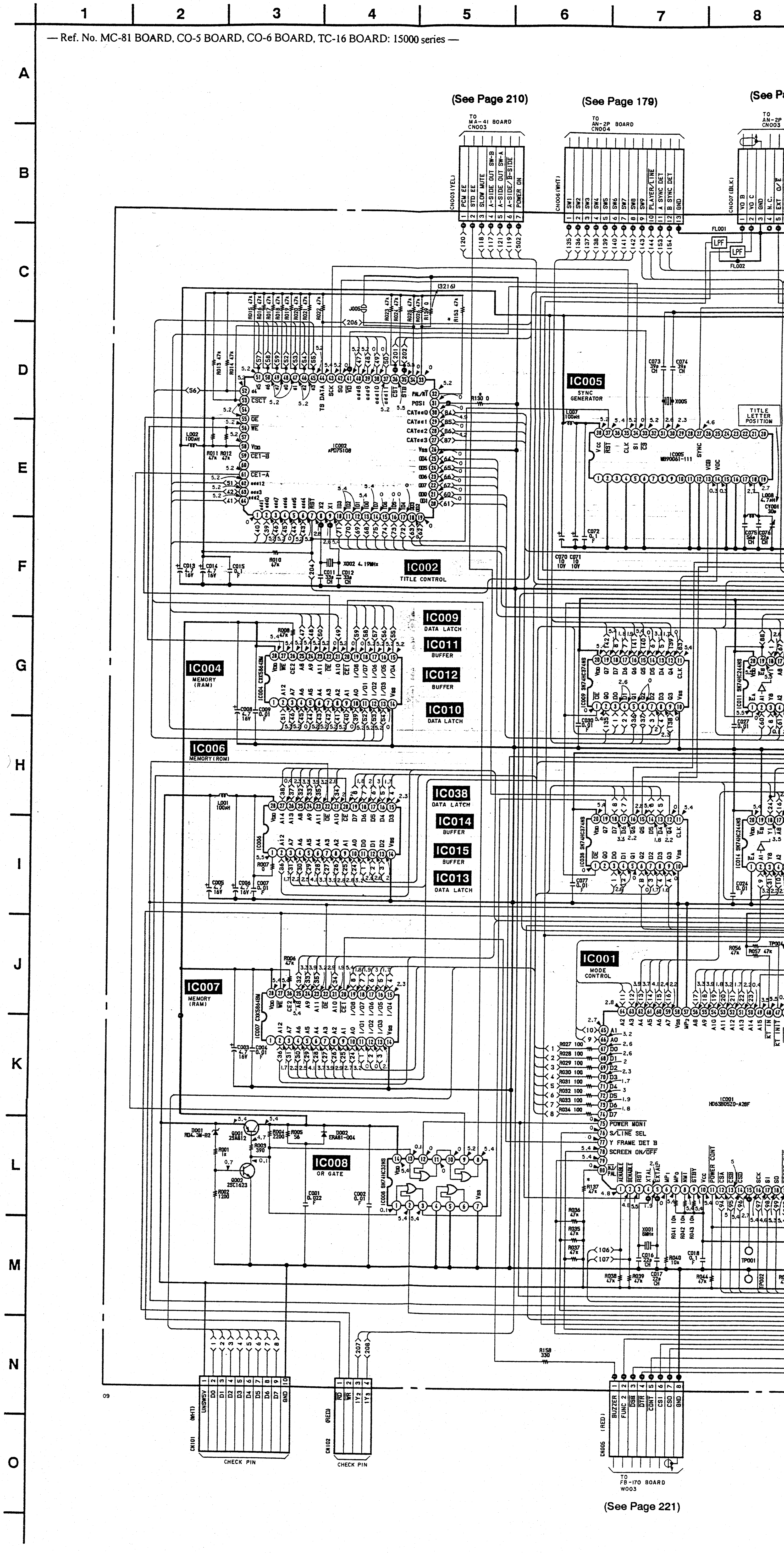
**TC-16** BOARD (CONDUCTOR SIDE)



TC-16
1-635-323-14
CP401
J402
W401
1-635-323-
14

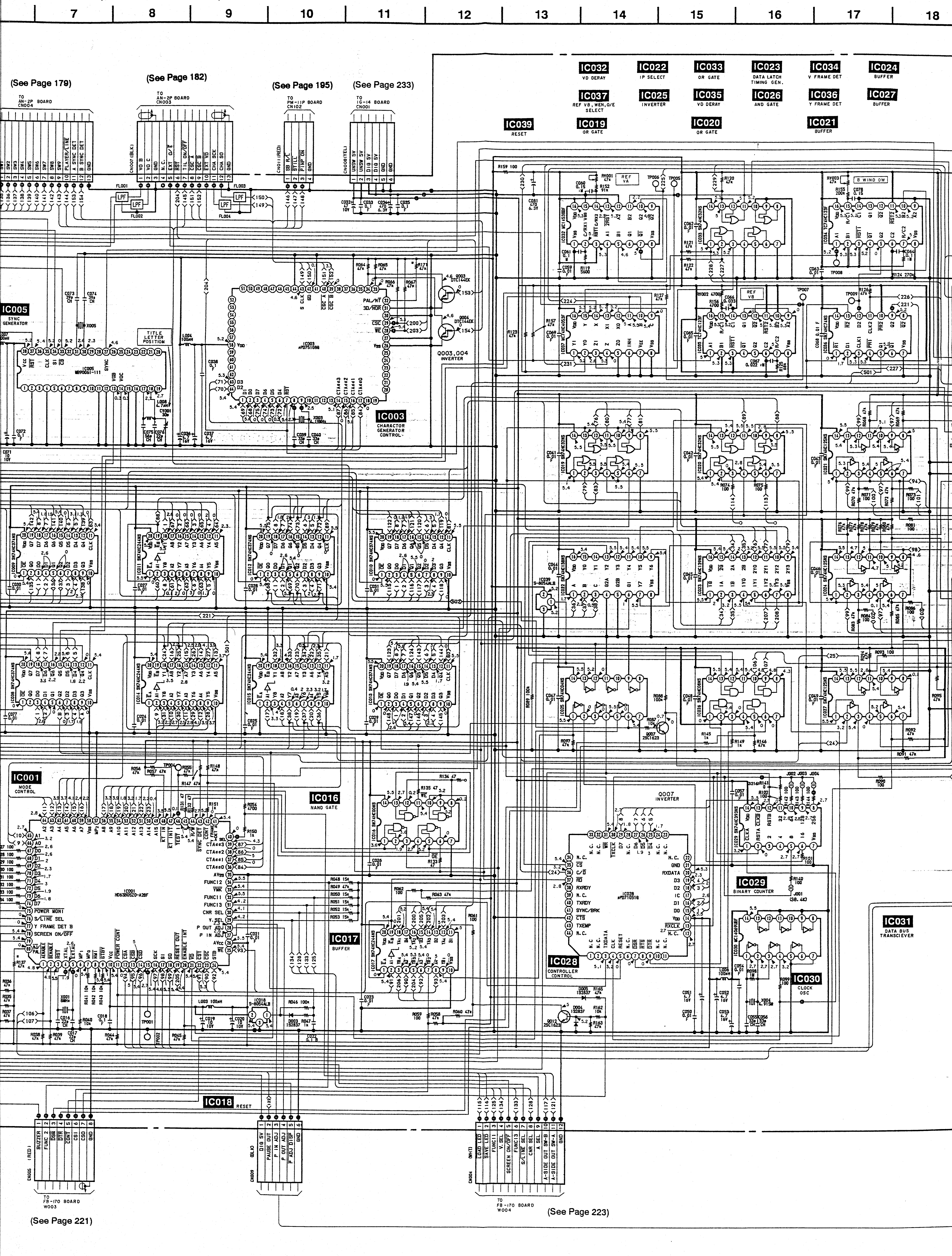
## MC-81 (MAIN CONTROL), CO-5 (DATA SCREEN SWITCH, IN/OUT POINT ADJ), CO-6 (PAUSE OUT JACK), TC-16 (TITL

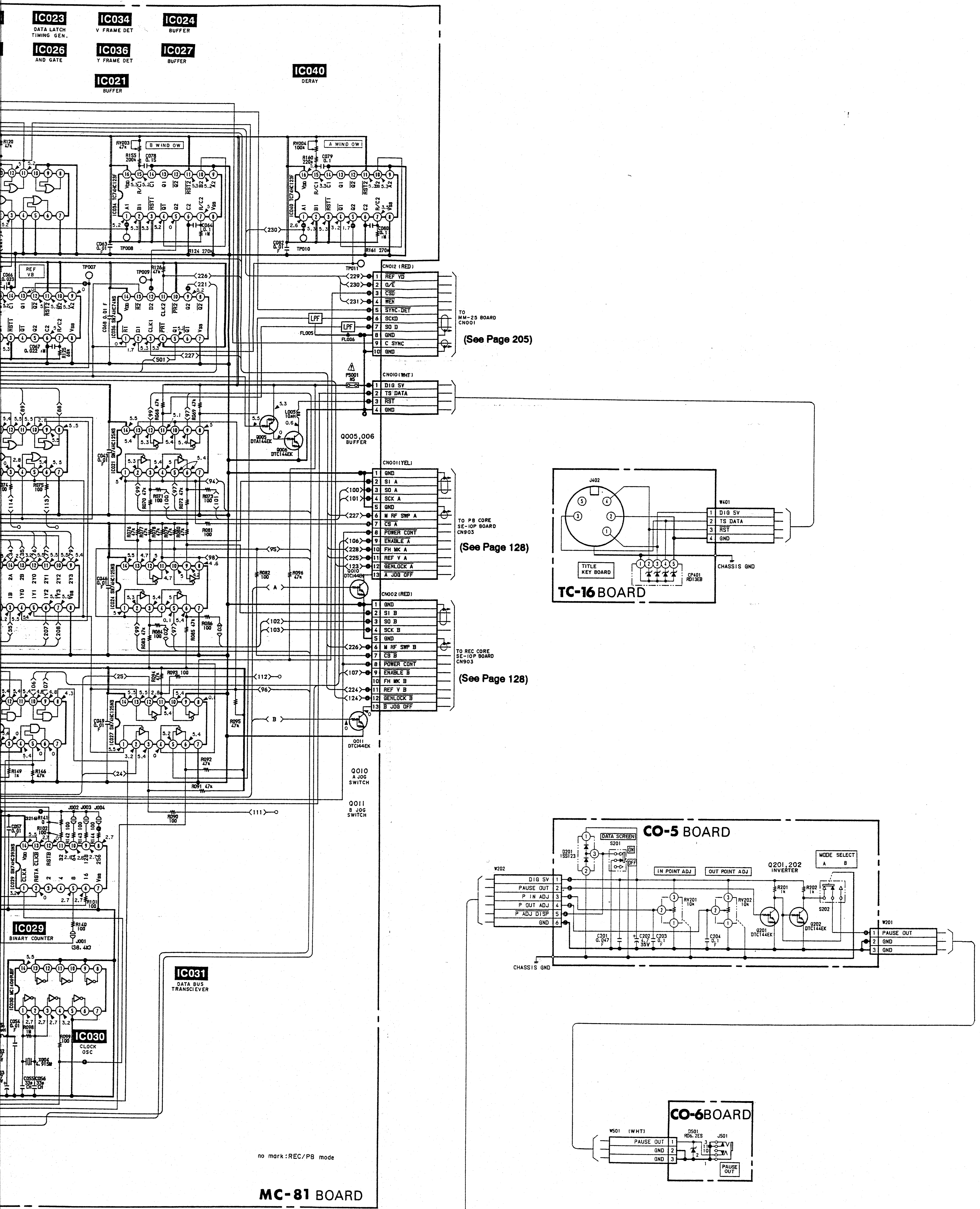
— Ref. No. MC-81 BOARD, CO-5 BOARD, CO-6 BOARD, TC-16 BOARD: 15000 series —



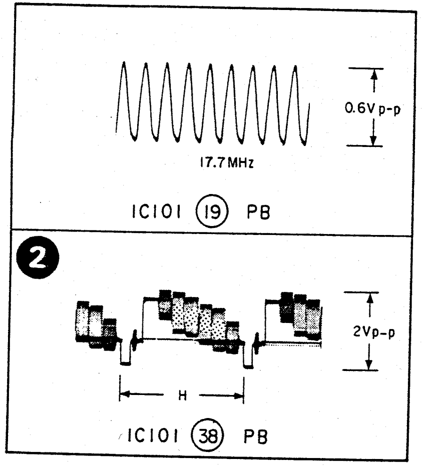
1
2
3
4
5
6
7
8
A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
(See Page 210)
TO MA-41 BOARD CN003
CN003 (YEL)
PCM EE
STD EE
SLOW MUTE
A-SIDE OUT SW-B
A-SIDE OUT SW-A
A-SIDE/B-SIDE
POWER ON
(See Page 179)
TO AN-2P BOARD CN004
CN006 (WHT)
SW1
SW2
SW3
SW4
SW5
SW6
SW7
SW8
SW9
PLAYER/LINE
A SYNC DET
B SYNC DET
GND
(See Pa
TO AN-2P CN003
CN007 (BLK)
VD B
VD C
GND
N.C.
EXT
FL001
FL002
LPF
IC005
SYNC GENERATOR
IC005 MB90061-111
TITLE LETTER POSITION
X005
IC002
TITLE CONTROL
IC002 µPD75108
X002 4.19MHz
J005
IC009
DATA LATCH
IC011
BUFFER
IC012
BUFFER
IC010
DATA LATCH
IC004
MEMORY (RAM)
IC004 CXK5864BM
IC009 SN74HC374NS
IC011 SN74HC244NS
IC006
MEMORY (ROM)
IC038
DATA LATCH
IC014
BUFFER
IC015
BUFFER
IC013
DATA LATCH
IC038 SN74HC374NS
IC014 SN74HC244NS
IC007
MEMORY (RAM)
IC007 CXK5864BM
IC001
MODE CONTROL
IC001 HD63B05Z0-A28F
POWER MONI
S/LINE SEL
Y FRAME DET B
SCREEN ON/OFF
X001 8MHz
TP001
TP002
IC008
OR GATE
IC008 SN74HC32NS
Q001 2SA812
Q002 2SC1623
D001 RD4.3M-B2
D002 ERA81-004
L001 100µH
L002 100µH
L007 100µH
L008
CN101 (WHT)
UNSW5V
D0
D1
D2
D3
D4
D5
D6
D7
GND
CHECK PIN
CN102 (RED)
RD
WR
1Y2
1Y3
CHECK PIN
CN005 (RED)
BUZZER
FUNC 2
DSR
DTR
CONT
CS1
CS0
GND
TO FB-170 BOARD W003
(See Page 221)
R158 330
09

# (PAUSE OUT JACK), TC-16 (TITLER JACK) SCHEMATIC DIAGRAMS

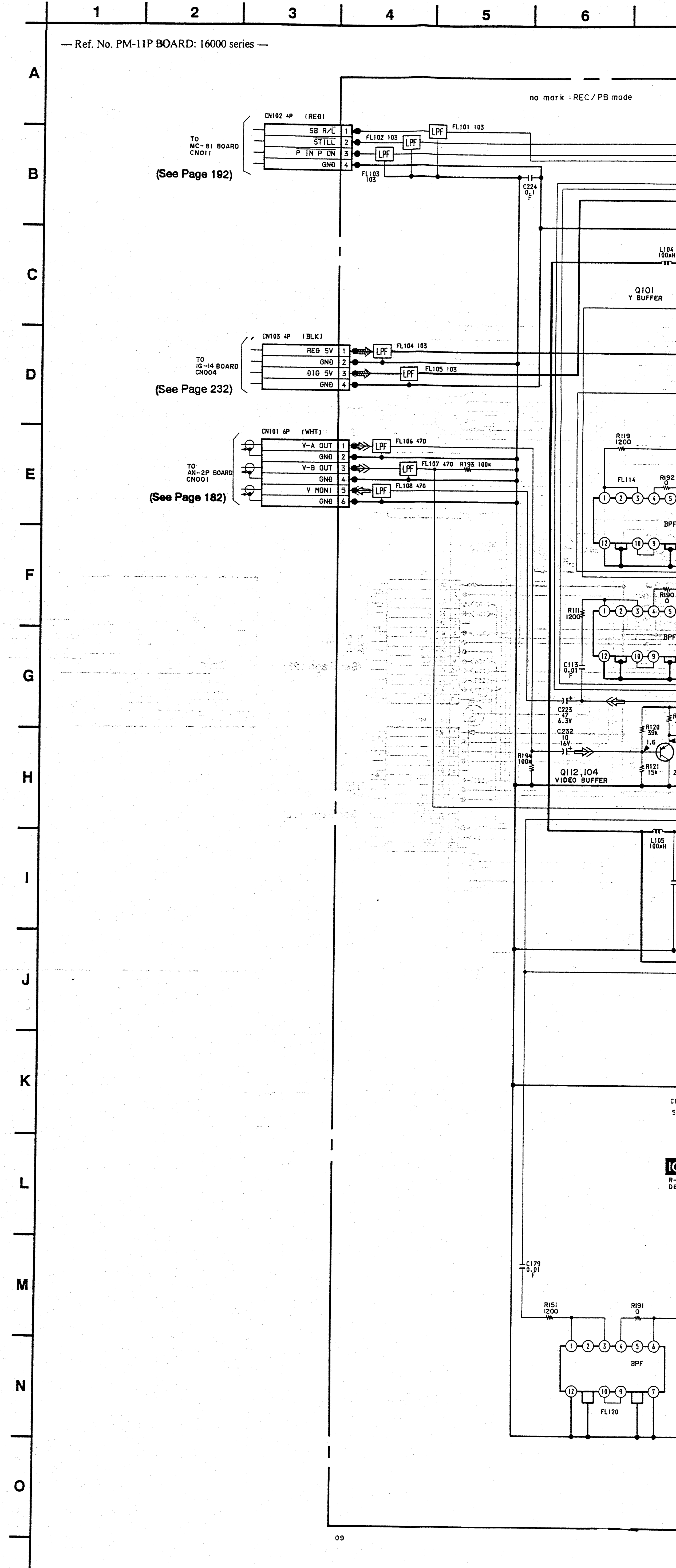

7
8
9
10
11
12
13
14
15
16
17
18
IC032
VD DERAY
IC022
IP SELECT
IC033
OR GATE
IC023
DATA LATCH TIMING GEN.
IC034
V FRAME DET
IC024
BUFFER
IC037
REF V8, WEN, O/E SELECT
IC025
INVERTER
IC035
VD DERAY
IC026
AND GATE
IC036
Y FRAME DET
IC027
BUFFER
IC039
RESET
IC019
OR GATE
IC020
OR GATE
IC021
BUFFER
(See Page 179)
TO AN-2P BOARD CN004
(See Page 182)
TO AN-2P BOARD CN003
(See Page 195)
TO PM-11P BOARD CN102
(See Page 233)
TO IG-14 BOARD CN001
IC005
SYNC GENERATOR
IC005 MB90061-111
TITLE LETTER POSITION
IC003 μPD7510880
IC003
CHARACTOR GENERATOR CONTROL
Q003,004 INVERTER
IC001
MODE CONTROL
IC001 HD63B05Z0-A28F
IC016
NAND GATE
IC017
BUFFER
Q007 INVERTER
IC028 μPD71051G
IC028
CONTROLLER CONTROL
IC029
BINARY COUNTER
IC030
CLOCK OSC
IC031
DATA BUS TRANSCEIVER
IC018
RESET
CN005 (RED)
BUZZER
FUNC 2
DSR
DTR
CONT
CS1
CSO
GND
TO FB-170 BOARD W003
(See Page 221)
CN009 (BLK)
DIG 5V
PAUSE OUT
P IN ADJ
P OUT ADJ
P ADJ DISP
GND
CN004 (WHT)
LOAD LED
SAVE LED
FUNC11
V. SEL
SCREEN ON/OFF
FUNC13
S/LINE SEL
CNR SEL
A SEL
A-SIDE OUT SW-B
A-SIDE OUT SW-A
GND
TO FB-170 BOARD W004
(See Page 223)


IC023
DATA LATCH TIMING GEN.
IC034
V FRAME DET
IC024
BUFFER
IC026
AND GATE
IC036
Y FRAME DET
IC027
BUFFER
IC021
BUFFER
IC040
DERAY
B WIND OW
A WIND OW
REF V8
CN012 (RED)
1 REF VD
2 O/E
3 CSD
4 WEN
5 SYNC DET
6 SCKD
7 SO D
8 GND
9 C SYNC
10 GND
TO MM-25 BOARD CN001
(See Page 205)
LPF
FL005
FL006
PS001
CN010 (WHT)
1 DIG 5V
2 TS DATA
3 RST
4 GND
Q005
DTA144EK
Q006
DTC144EK
Q005,006 BUFFER
CN001 (YEL)
1 GND
2 SI A
3 SO A
4 SCK A
5 GND
6 M RF SWP A
7 CS A
8 POWER CONT
9 ENABLE A
10 FH MK A
11 REF V A
12 GENLOCK A
13 A JOG OFF
TO PB CORE SE-10P BOARD CN903
(See Page 128)
Q010
DTC144EK
CN002 (RED)
1 GND
2 SI B
3 SO B
4 SCK B
5 GND
6 M RF SWP B
7 CS B
8 POWER CONT
9 ENABLE B
10 FH MK B
11 REF V B
12 GENLOCK B
13 B JOG OFF
TO REC CORE SE-10P BOARD CN903
(See Page 128)
Q011
DTC144EK
Q010
A JOG SWITCH
Q011
B JOG SWITCH
IC029
BINARY COUNTER
IC031
DATA BUS TRANSCEIVER
IC030
CLOCK OSC
no mark:REC/PB mode
MC-81 BOARD
J402
W401
1 DIG 5V
2 TS DATA
3 RST
4 GND
TITLE KEY BOARD
CP401
RD13EB
CHASSIS GND
TC-16 BOARD
CO-5 BOARD
DATA SCREEN
S201
ON
OFF
D201
1SS123
IN POINT ADJ
OUT POINT ADJ
Q201,202
INVERTER
MODE SELECT
A B
W202
DIG 5V 1
PAUSE OUT 2
P IN ADJ 3
P OUT ADJ 4
P ADJ DISP 5
GND 6
RV201
10k
RV202
10k
R201
1k
R202
1k
S202
Q201
DTC144EK
Q202
DTC144EK
C201
0.047
C202
4.7 35V
C203
0.1
C204
0.1
W201
1 PAUSE OUT
2 GND
3 GND
CHASSIS GND
CO-6 BOARD
W501 (WHT)
PAUSE OUT 1
GND 2
GND 3
D501
RD6.2ES
J501
PAUSE OUT

**PM-11P** BOARD



## PM-11P (PICTURE IN PICTURE PROCESS) SCHEMATIC DIAGRAM


1
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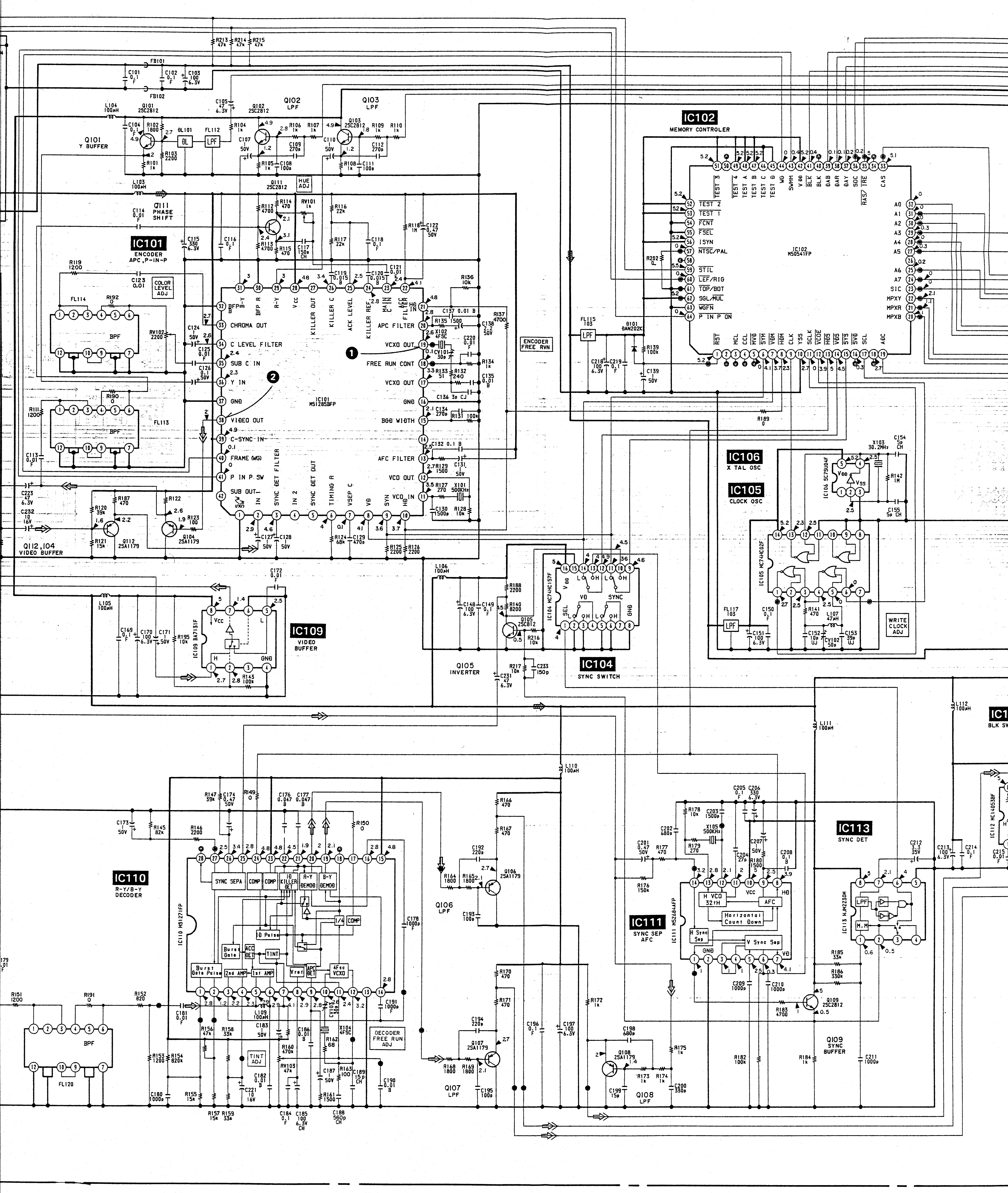
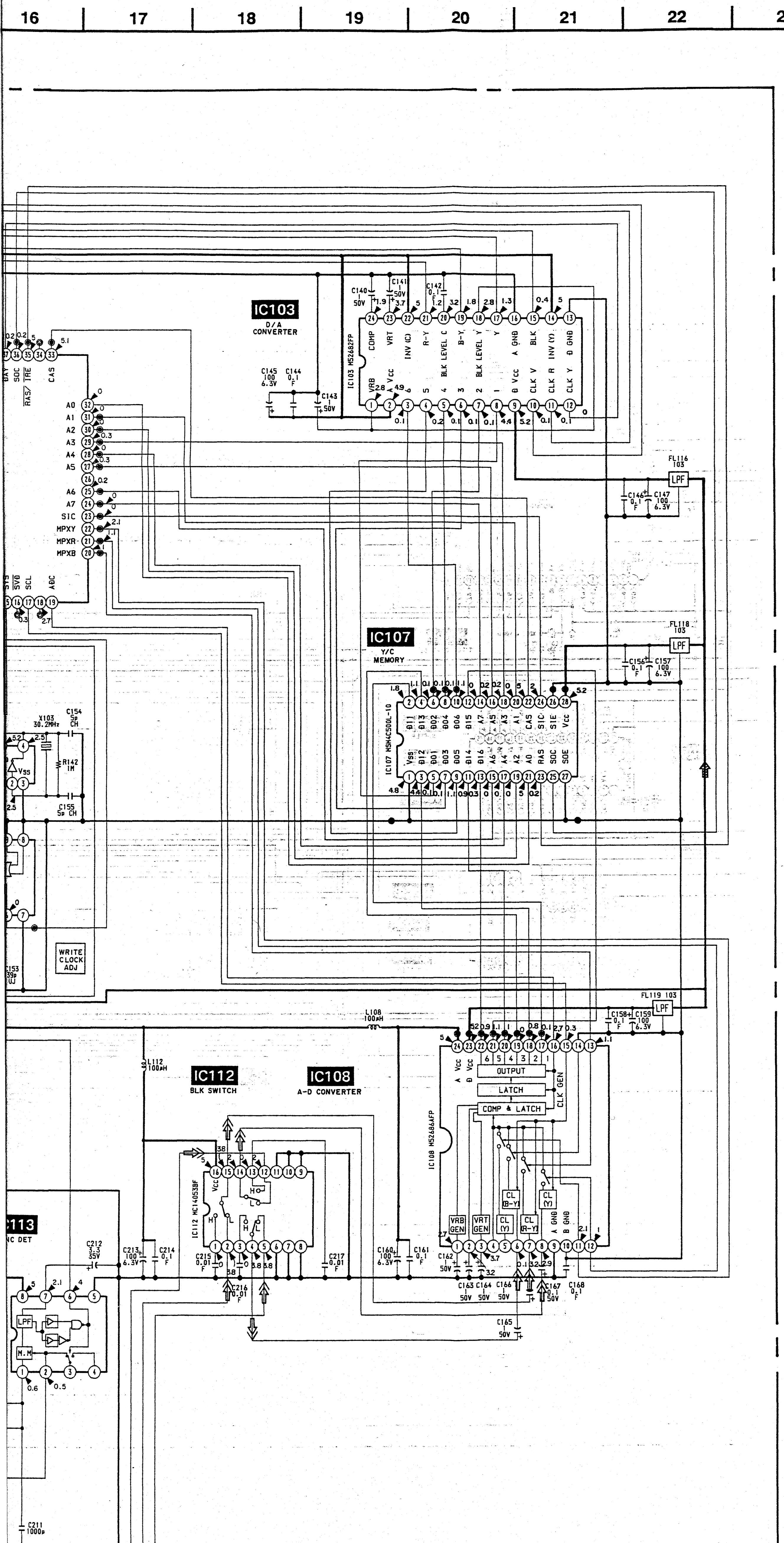
6
A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
— Ref. No. PM-11P BOARD: 16000 series —
no mark : REC / PB mode
CN102 4P (RED)
SB R/L 1
STILL 2
P IN P ON 3
GND 4
TO MC-81 BOARD CN011
(See Page 192)
FL101 103
FL102 103
FL103 103
LPF
C224 0.1 F
L104 100μH
Q101 Y BUFFER
CN103 4P (BLK)
REG 5V 1
GND 2
DIG 5V 3
GND 4
TO IG-14 BOARD CN004
(See Page 232)
FL104 103
FL105 103
CN101 6P (WHT)
V-A OUT 1
GND 2
V-B OUT 3
GND 4
V MONI 5
GND 6
TO AN-2P BOARD CN001
(See Page 182)
FL106 470
FL107 470
R193 100k
FL108 470
R119 1200
R192 0
FL114
BPF
R190 0
R111 1200
C113 0.01 F
C223 47 6.3V
C232 10 16V
R120 39k
R121 15k
1.6
R194 100k
Q112,104 VIDEO BUFFER
L105 100μH
C179 0.01 F
R151 1200
R191 0
BPF
FL120
09

6 7 8 9 10 11 12 13 14 15 16 17

o mark : REC / PB mode


IC101
ENCODER
APC,P-IN-P
IC101 M51285BFP
IC102
MEMORY CONTROLER
IC102 M50541FP
IC104
SYNC SWITCH
IC104 MC74HC157F
IC105
CLOCK OSC
IC105 MC74HC02F
IC106
X TAL OSC
IC106 SC75U04F
IC109
VIDEO BUFFER
IC109 BA7131F
IC110
R-Y/B-Y DECODER
IC110 M51271FP
IC111
SYNC SEP AFC
IC111 NS2684AFP
IC113
SYNC DET
IC113 NJM2230M
Q101
Y BUFFER
Q102
LPF
Q103
LPF
Q111
PHASE SHIFT
Q112,104
VIDEO BUFFER
Q105
INVERTER
Q106
LPF
Q107
LPF
Q108
LPF
Q109
SYNC BUFFER
COLOR LEVEL ADJ
HUE ADJ
ENCODER FREE RVN
WRITE CLOCK ADJ
TINT ADJ
DECODER FREE RUN ADJ
CHROMA OUT
C LEVEL FILTER
SUB C IN
Y IN
GND
VIDEO OUT
C-SYNC IN
FRAME (WG)
P IN P SW
SUB OUT
APC FILTER
VCXO OUT
FREE RUN CONT
VCXO OUT
BGO WIDTH
AFC FILTER
VCO OUT
VCO IN
SYNC SEPA
COMP
KILLER DET
R-Y DEMOD
B-Y DEMOD
1/4 COMP
Burst Gate
ACC DET
TINT
Burst Gate Pulse
2nd AMP
1st AMP
Vref
APC DET
4Fsc VCXO
H VCO 32fH
AFC
Horizontal Count Down
H Sync Sep
V Sync Sep
BPF
FL113
FL114
FL120
IC112 MC14053BF
BLK SW


16
17
18
19
20
21
22
23
24
25
IC103
D/A CONVERTER
IC103 M52682FP
IC107
Y/C MEMORY
IC107 MSM4C500L-10
IC112
BLK SWITCH
IC112 MC14053BF
IC108
A-D CONVERTER
IC108 M52686AFP
OUTPUT
LATCH
COMP & LATCH
CLK GEN
VRB GEN
VRT GEN
FL116 103
FL118 103
FL119 103
LPF
X103 30.2MHz
WRITE CLOCK ADJ
L108 100μH
L112 100μH
PM-11P BOARD

- **SIGNAL PATH**

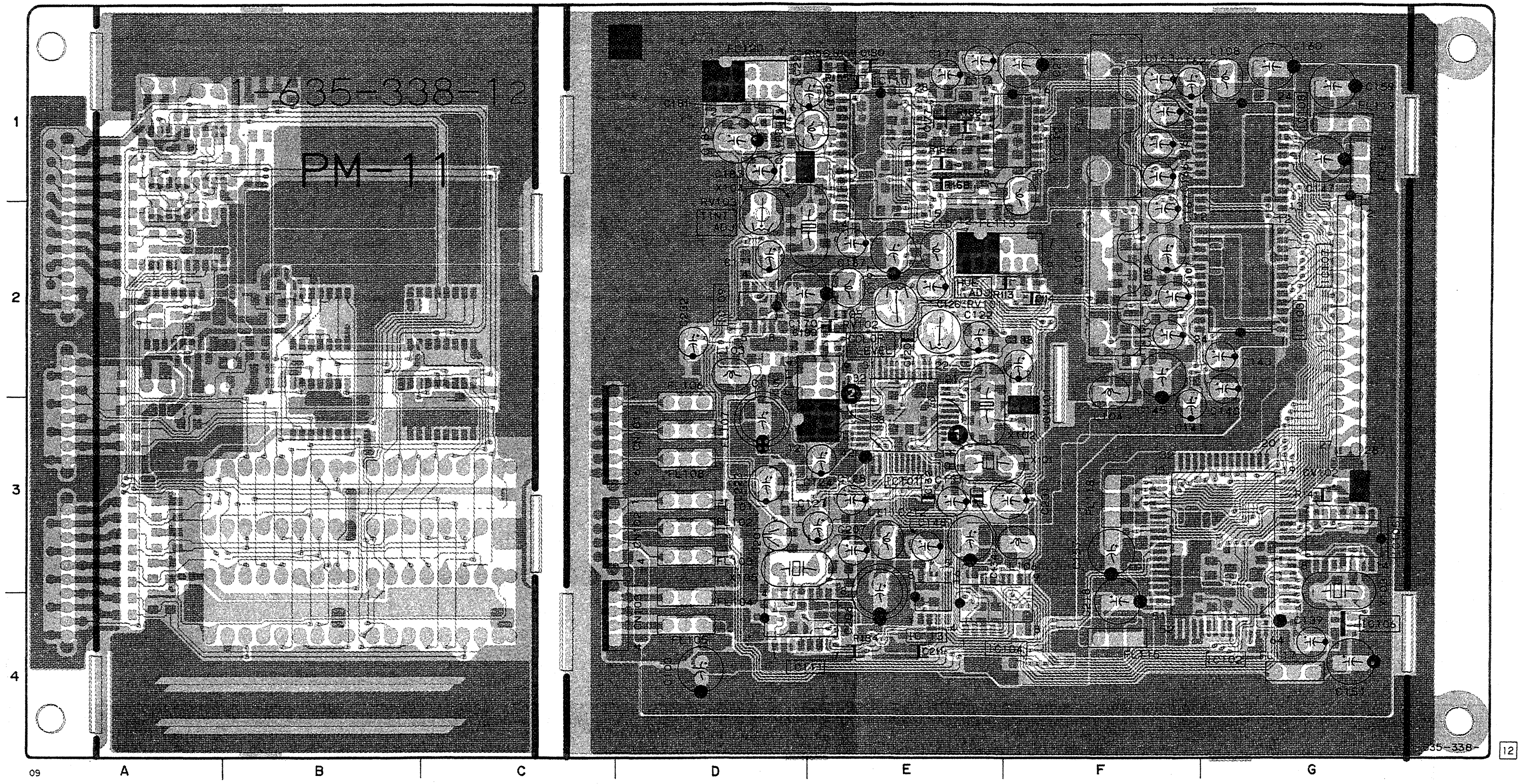
| | VIDEO SIGNAL | | | AUDIO SIGNAL |
|---|---|---|---|---|
| | CHROMA | Y | Y/CHROMA/DATA | |
| REC | ➡ | ➡» | ➡»» | |
| PB | | ⇨» | | |

## PM-11P (PICTURE IN PICTURE PROCESS) PRINTED WIRING BOARD

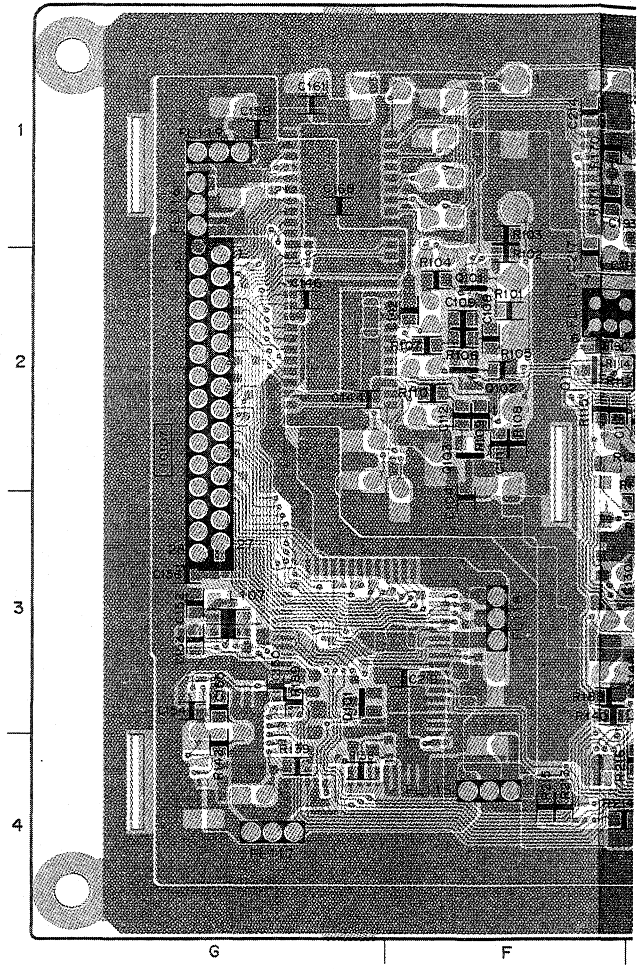
— Ref. No. PM-11P BOARD: 16000 series —

| PM-11P BOARD (COMPONENT SIDE) | | PM-11P BOARD (CONDUCTOR SIDE) | |
|---|---|---|---|
| IC101 | E-3 | D101 | G-3 |
| IC102 | G-3 | | |
| IC103 | G-2 | Q101 | F-2 |
| IC104 | E-4 | Q102 | F-2 |
| IC105 | G-3 | Q103 | F-2 |
| IC106 | G-4 | Q104 | D-3 |
| IC107 | G-2 | Q105 | E-3 |
| IC108 | G-1 | Q106 | E-1 |
| IC109 | D-2 | Q107 | E-1 |
| IC110 | E-1 | Q108 | E-2 |
| IC111 | D-1 | Q109 | D-4 |
| IC112 | F-1 | Q111 | F-2 |
| IC113 | E-4 | Q112 | D-2 |

**PM-11P** BOARD (COMPONENT SIDE)



**PM-11P** BOARD (CONDUCTOR SIDE)



* A-7062-846-A PM-11 (P) BOARD, COMPLETE
**************************
(Ref. No 16, 000 Series)

< DIODE >

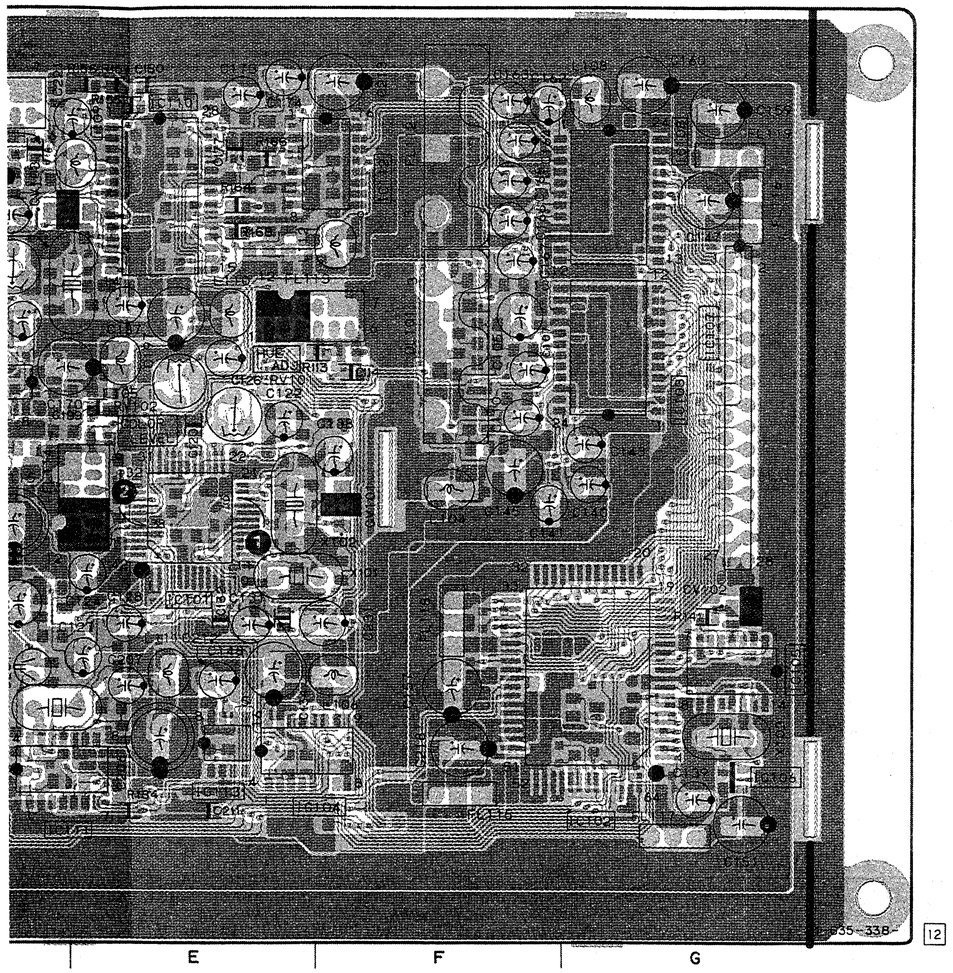
| | | | |
|---|---|---|---|
| D101 | 8-719-400-18 | DIODE | MA152WK |

< IC >

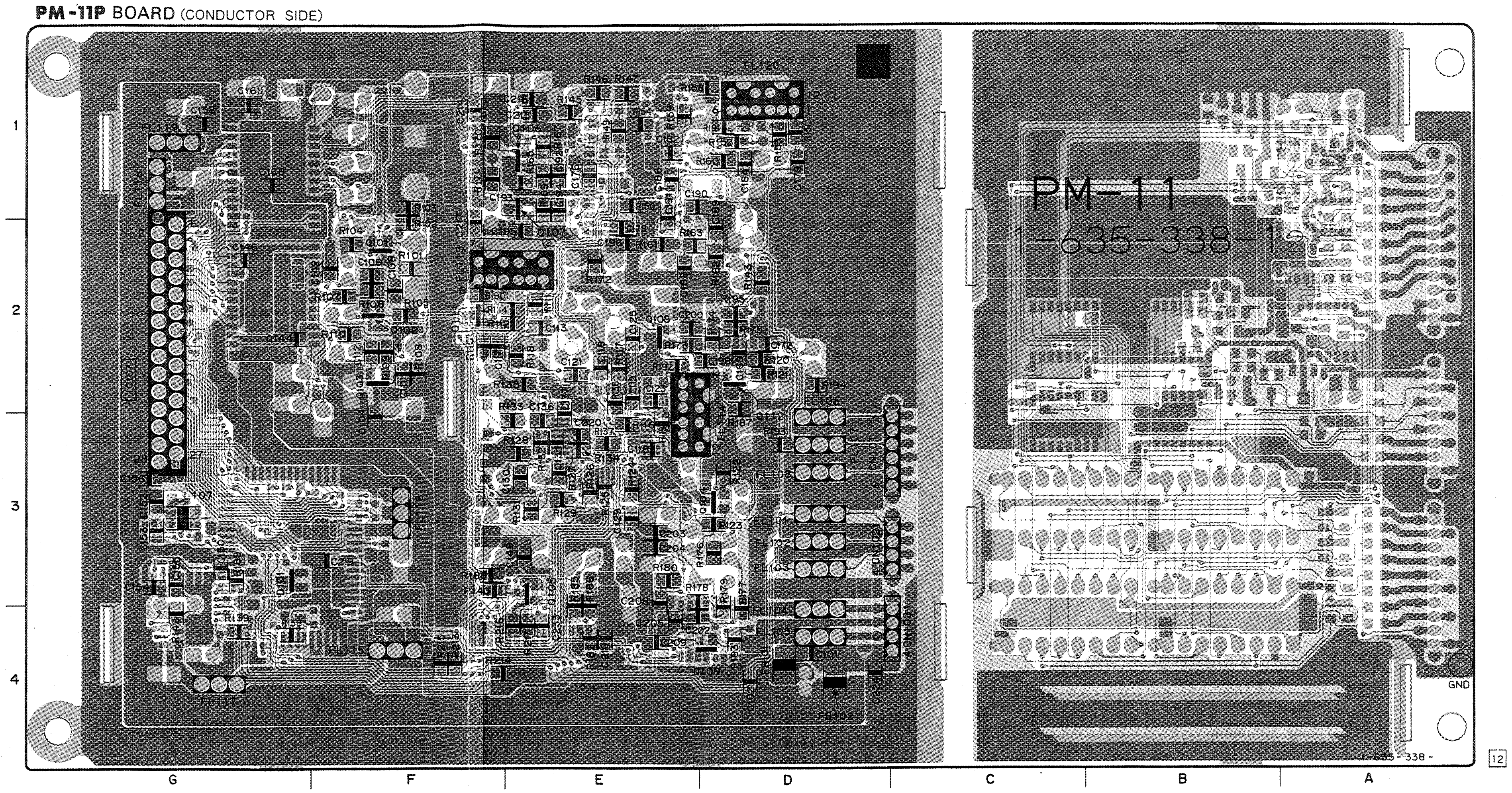
| | | | |
|---|---|---|---|
| IC101 | 8-759-633-99 | IC | M51285BFP-V |
| IC102 | 8-759-631-06 | IC | M50541FP |
| IC103 | 8-759-633-96 | IC | M52682FP |
| IC104 | 8-759-032-41 | IC | MC74HC157AF |
| IC104 | 8-759-926-18 | IC | SN74HC157ANS |
| IC105 | 8-759-925-72 | IC | SN74HC02ANS |
| IC106 | 8-759-031-58 | IC | SC7SU04F |
| IC107 | 8-759-605-15 | IC | M5M4C500L |
| IC108 | 8-759-633-04 | IC | M52686AFP |
| IC109 | 8-759-941-68 | IC | BA7131F |
| IC110 | 8-759-603-54 | IC | M51271FP |
| IC111 | 8-759-631-10 | IC | M52684AFP |
| IC112 | 8-759-300-71 | IC | TC4053BF |
| IC113 | 8-759-710-12 | IC | NJM2230M |

< TRANSISTOR >

| | | | |
|---|---|---|---|
| Q101 | 8-729-230-49 | TRANSISTOR | 2SC2712 |
| Q102 | 8-729-230-49 | TRANSISTOR | 2SC2712 |
| Q103 | 8-729-230-49 | TRANSISTOR | 2SC2712 |
| Q104 | 8-729-216-22 | TRANSISTOR | 2SA1162 |
| Q105 | 8-729-230-49 | TRANSISTOR | 2SC2712 |
| Q106 | 8-729-216-22 | TRANSISTOR | 2SA1162 |
| Q107 | 8-729-216-22 | TRANSISTOR | 2SA1162 |
| Q108 | 8-729-216-22 | TRANSISTOR | 2SA1162 |
| Q109 | 8-729-230-49 | TRANSISTOR | 2SC2712 |
| Q111 | 8-729-230-49 | TRANSISTOR | 2SC2712 |
| Q112 | 8-729-216-22 | TRANSISTOR | 2SA1162 |



**PM-11P** BOARD (CONDUCTOR SIDE)



< TRANSISTOR >

| | | | | |
|---|---|---|---|---|
| | Q101 | 8-729-230-49 | TRANSISTOR | 2SC2712 |
| | Q102 | 8-729-230-49 | TRANSISTOR | 2SC2712 |
| | Q103 | 8-729-230-49 | TRANSISTOR | 2SC2712 |
| | Q104 | 8-729-216-22 | TRANSISTOR | 2SA1162 |
| S | Q105 | 8-729-230-49 | TRANSISTOR | 2SC2712 |
| | Q106 | 8-729-216-22 | TRANSISTOR | 2SA1162 |
| | Q107 | 8-729-216-22 | TRANSISTOR | 2SA1162 |
| | Q108 | 8-729-216-22 | TRANSISTOR | 2SA1162 |
| | Q109 | 8-729-230-49 | TRANSISTOR | 2SC2712 |
| | Q111 | 8-729-230-49 | TRANSISTOR | 2SC2712 |
| | Q112 | 8-729-216-22 | TRANSISTOR | 2SA1162 |

* A-7062-847-A MM-25 BOARD, COMPLETE
**********************
(Ref.No 16,000 Series)

< DIODE >

| | | | |
|---|---|---|---|
| D701 | 8-713-300-88 | DIODE | 1T33C-01 |
| D702 | 8-719-949-46 | DIODE | 1T32 |
| D901 | 8-719-400-18 | DIODE | MA152WK |
| D906 | 8-719-400-18 | DIODE | MA152WK |
| D907 | 8-719-400-18 | DIODE | MA152WK |

< IC >

| | | | |
|---|---|---|---|
| IC701 | 8-759-987-17 | IC | CXD1226Q |
| IC702 | 8-759-987-18 | IC | CXD1227Q |
| IC703 | 8-759-500-94 | IC | CXD2108Q |
| IC704 | 8-759-987-20 | IC | CXD1229Q |
| IC705 | 8-752-337-41 | IC | CXK1206M |
| IC706 | 8-752-337-41 | IC | CXK1206M |
| IC707 | 8-752-337-41 | IC | CXK1206M |
| IC708 | 8-752-334-55 | IC | CXD1175AM |
| IC709 | 8-752-334-55 | IC | CXD1175AM |
| IC710 | 8-752-032-96 | IC | CXA1106M |
| IC711 | 8-752-032-96 | IC | CXA1106M |
| IC900 | 8-759-987-27 | IC | LM1881M |
| IC902 | 8-759-206-28 | IC | MC74HC123AF |
| IC904 | 8-759-927-46 | IC | SN74HC00ANS |
| IC905 | 8-759-710-62 | IC | NJM2246M |
| IC906 | 8-759-710-61 | IC | NJM2229M |
| IC907 | 8-759-239-34 | IC | TC74HC4538AF |
| IC908 | 8-759-925-76 | IC | SN74HC08ANS |

< TRANSISTOR >

| | | | |
|---|---|---|---|
| Q603 | 8-729-100-66 | TRANSISTOR | 2SC1623 |
| Q604 | 8-729-100-66 | TRANSISTOR | 2SC1623 |
| Q605 | 8-729-100-66 | TRANSISTOR | 2SC1623 |
| Q606 | 8-729-100-66 | TRANSISTOR | 2SC1623 |
| Q607 | 8-729-100-66 | TRANSISTOR | 2SC1623 |
| Q608 | 8-729-100-66 | TRANSISTOR | 2SC1623 |
| Q609 | 8-729-216-22 | TRANSISTOR | 2SA1162 |
| Q610 | 8-729-100-66 | TRANSISTOR | 2SC1623 |
| Q611 | 8-729-100-66 | TRANSISTOR | 2SC1623 |
| Q612 | 8-729-100-66 | TRANSISTOR | 2SC1623 |
| Q613 | 8-729-100-66 | TRANSISTOR | 2SC1623 |
| Q614 | 8-729-100-66 | TRANSISTOR | 2SC1623 |
| Q615 | 8-729-100-66 | TRANSISTOR | 2SC1623 |
| Q616 | 8-729-100-66 | TRANSISTOR | 2SC1623 |
| Q617 | 8-729-100-66 | TRANSISTOR | 2SC1623 |
| Q618 | 8-729-100-66 | TRANSISTOR | 2SC1623 |
| Q619 | 8-729-100-66 | TRANSISTOR | 2SC1623 |
| Q628 | 8-729-100-66 | TRANSISTOR | 2SC1623 |
| Q701 | 8-729-102-08 | TRANSISTOR | 2SC2223 |
| Q702 | 8-729-122-63 | TRANSISTOR | 2SA1226 |
| Q900 | 8-729-100-66 | TRANSISTOR | 2SC1623 |
| Q901 | 8-729-216-22 | TRANSISTOR | 2SA1162 |
| Q903 | 8-729-100-66 | TRANSISTOR | 2SC1623 |
| Q904 | 8-729-901-01 | TRANSISTOR | DTC144EK |
| Q905 | 8-729-100-66 | TRANSISTOR | 2SC1623 |
| Q906 | 8-729-100-66 | TRANSISTOR | 2SC1623 |

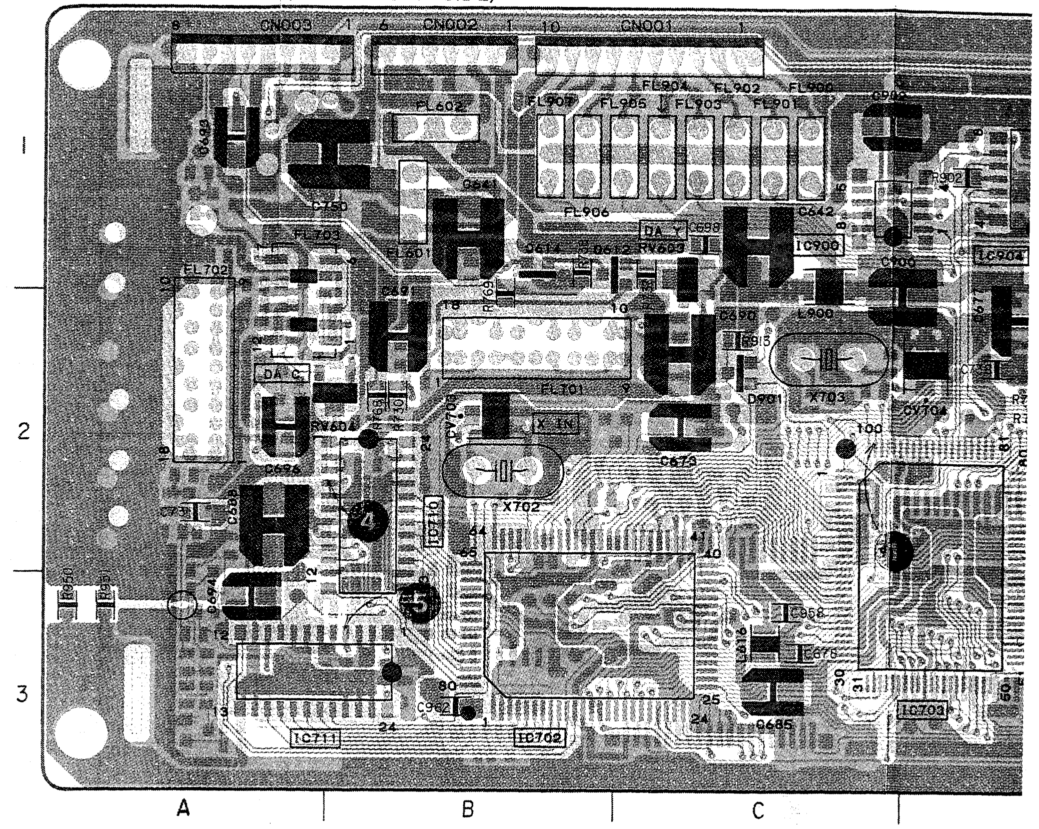
## MM-25 (DIGITAL PICTURE PROCESS) PRINTED WIRING BOARD

— Ref. No. MM-25 BOARD: 16000 series —

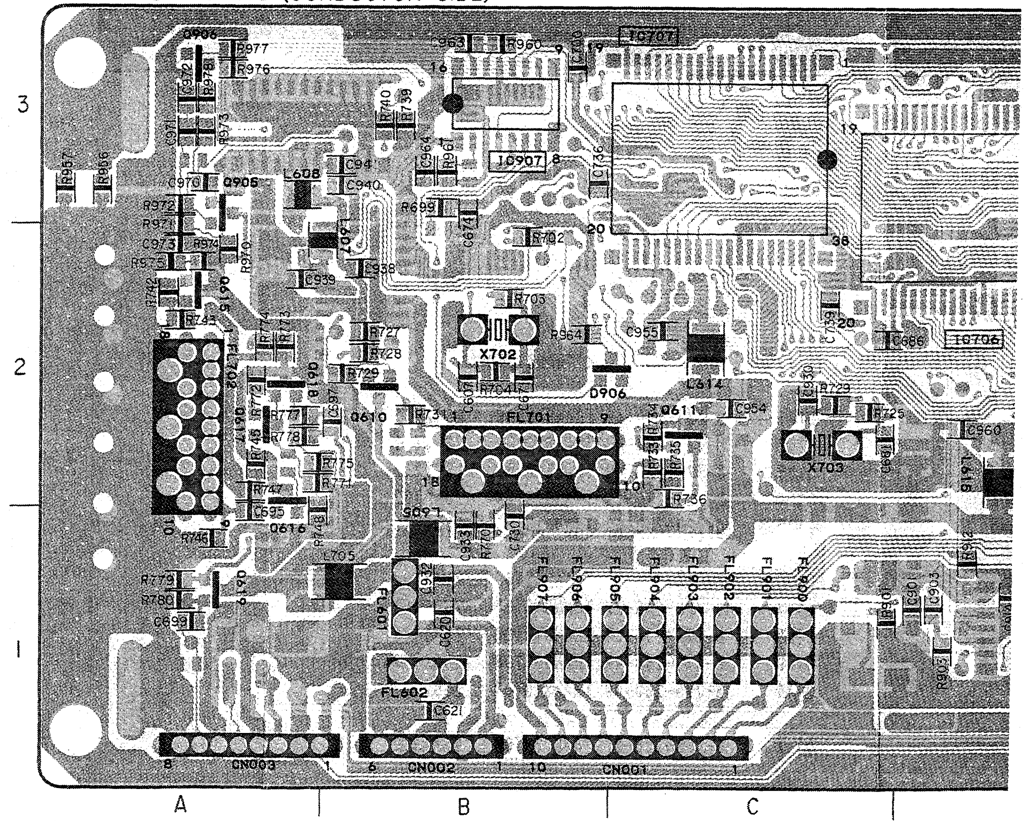
| MM-25 BOARD (COMPONENT SIDE) | |
|---|---|
| D901 | C-2 |
| D907 | F-2 |
| IC701 | E-2 |
| IC702 | B-2 |
| IC703 | D-3 |
| IC704 | G-3 |
| IC708 | F-2 |
| IC709 | E-1 |
| IC710 | B-2 |
| IC711 | A-3 |
| IC900 | C-1 |
| IC902 | E-1 |
| IC904 | D-1 |
| IC905 | G-1 |
| IC906 | G-1 |
| Q612 | B-1 |
| Q614 | B-1 |
| Q903 | G-3 |

| MM-25 BOARD (CONDUCTOR SIDE) | |
|---|---|
| D701 | G-2 |
| D702 | F-2 |
| D906 | B-2 |
| IC705 | E-3 |
| IC706 | D-2 |
| IC707 | C-3 |
| IC907 | B-3 |
| IC908 | E-1 |
| Q603 | G-2 |
| Q604 | G-2 |
| Q605 | G-2 |
| Q606 | F-1 |
| Q607 | F-2 |
| Q608 | F-1 |
| Q609 | G-2 |
| Q610 | B-2 |
| Q611 | C-2 |
| Q613 | G-2 |
| Q615 | A-2 |
| Q616 | A-1 |
| Q617 | A-2 |
| Q618 | A-2 |
| Q619 | A-1 |
| Q628 | F-2 |
| Q701 | F-3 |
| Q702 | F-3 |
| Q900 | G-1 |
| Q901 | G-2 |
| Q904 | E-2 |
| Q905 | A-3 |
| Q906 | A-3 |

**MM-25** BOARD (COMPONENT SIDE)



**MM-25** BOARD (CONDUCTOR SIDE)



09

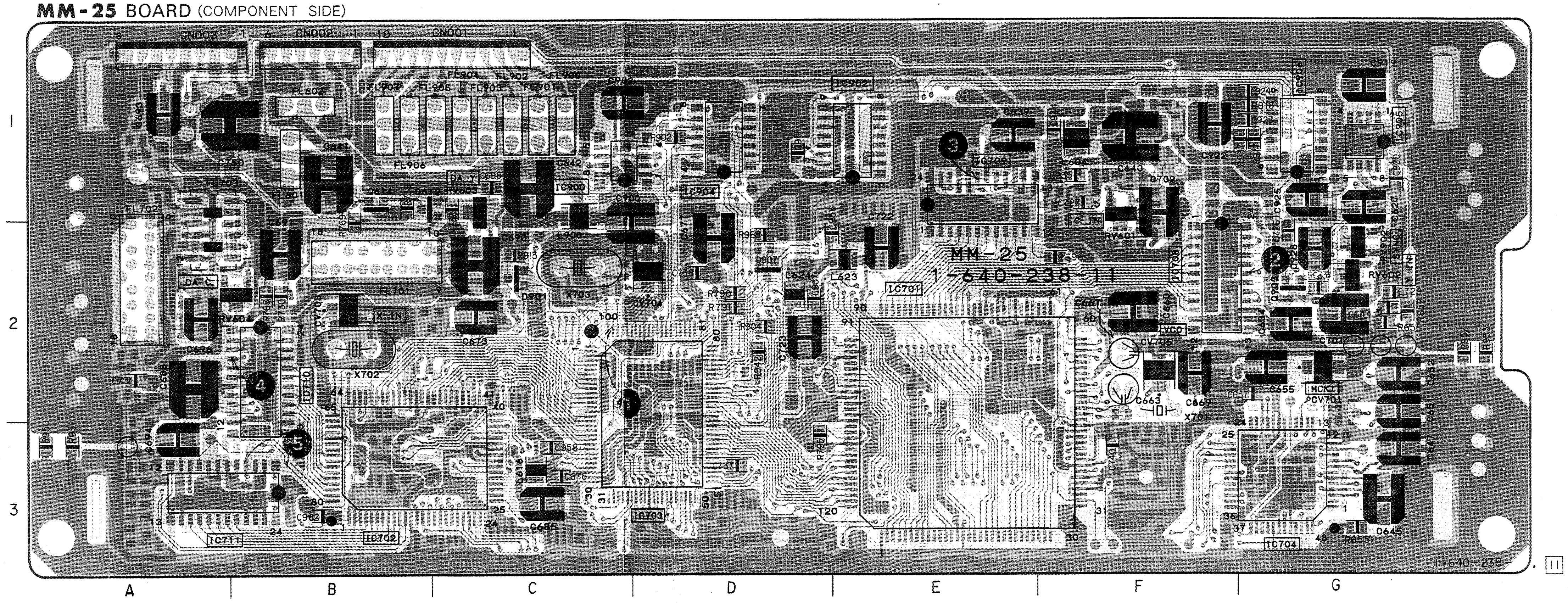
## MM-25 (DIGITAL PICTURE PROCESS) PRINTED WIRING BOARD

— Ref. No. MM-25 BOARD: 16000 series —

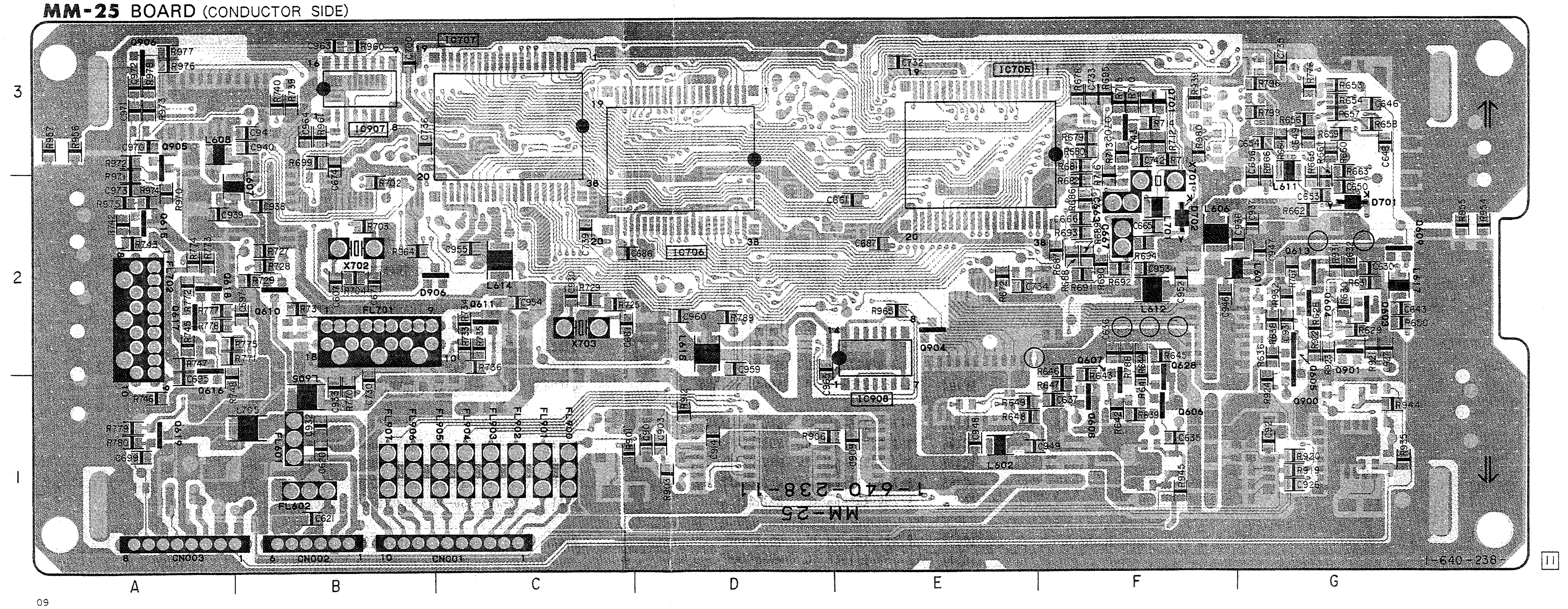
| MM-25 BOARD (COMPONENT SIDE) | |
|---|---|
| D901 | C-2 |
| D907 | F-2 |
| IC701 | E-2 |
| IC702 | B-2 |
| IC703 | D-3 |
| IC704 | G-3 |
| IC708 | F-2 |
| IC709 | E-1 |
| IC710 | B-2 |
| IC711 | A-3 |
| IC900 | C-1 |
| IC902 | E-1 |
| IC904 | D-1 |
| IC905 | G-1 |
| IC906 | G-1 |
| Q612 | B-1 |
| Q614 | B-1 |
| Q903 | G-3 |

| MM-25 BOARD (CONDUCTOR SIDE) | |
|---|---|
| D701 | G-2 |
| D702 | F-2 |
| D906 | B-2 |
| IC705 | E-3 |
| IC706 | D-2 |
| IC707 | C-3 |
| IC907 | B-3 |
| IC908 | E-1 |
| Q603 | G-2 |
| Q604 | G-2 |
| Q605 | G-2 |
| Q606 | F-1 |
| Q607 | F-2 |
| Q608 | F-1 |
| Q609 | G-2 |
| Q610 | B-2 |
| Q611 | C-2 |
| Q613 | G-2 |
| Q615 | A-2 |
| Q616 | A-1 |
| Q617 | A-2 |
| Q618 | A-2 |
| Q619 | A-1 |
| Q628 | F-2 |
| Q701 | F-3 |
| Q702 | F-3 |
| Q900 | G-1 |
| Q901 | G-2 |
| Q904 | E-2 |
| Q905 | A-3 |
| Q906 | A-3 |

**MM-25** BOARD (COMPONENT SIDE)


CN003
CN002
CN001
MM-25
1-640-238-11
IC701
IC702
IC703
IC704
IC709
IC711
IC900
IC902
IC904
X701
X702
X703
1-640-238-
11
1
2
3
A
B
C
D
E
F
G

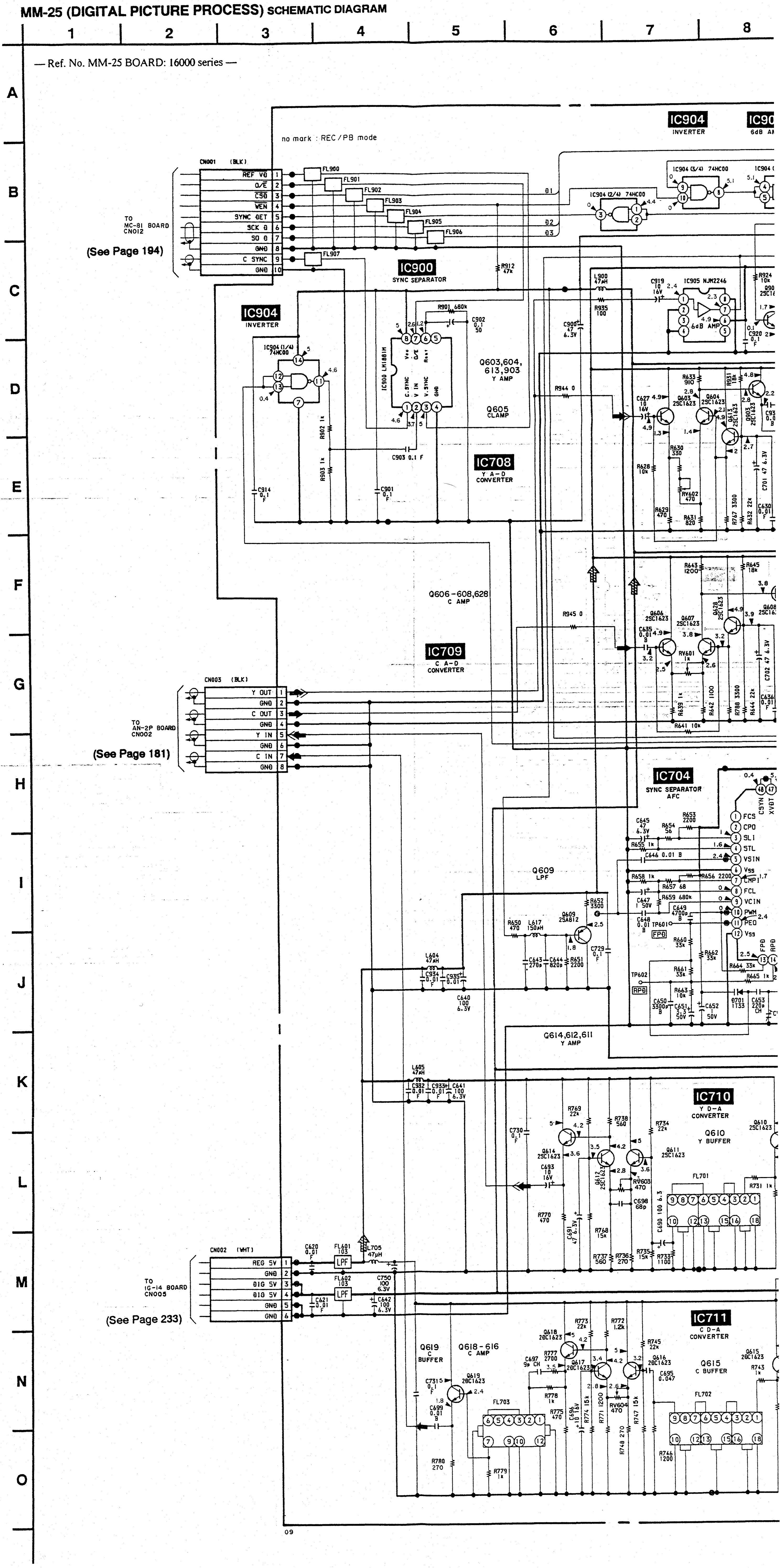
**MM-25** BOARD (CONDUCTOR SIDE)


CN003
CN002
CN001
MM-25
1-640-238-11
IC705
IC706
IC707
IC907
IC908
X702
X703
FL701
FL602
1-640-238-
11
3
2
1
A
B
C
D
E
F
G

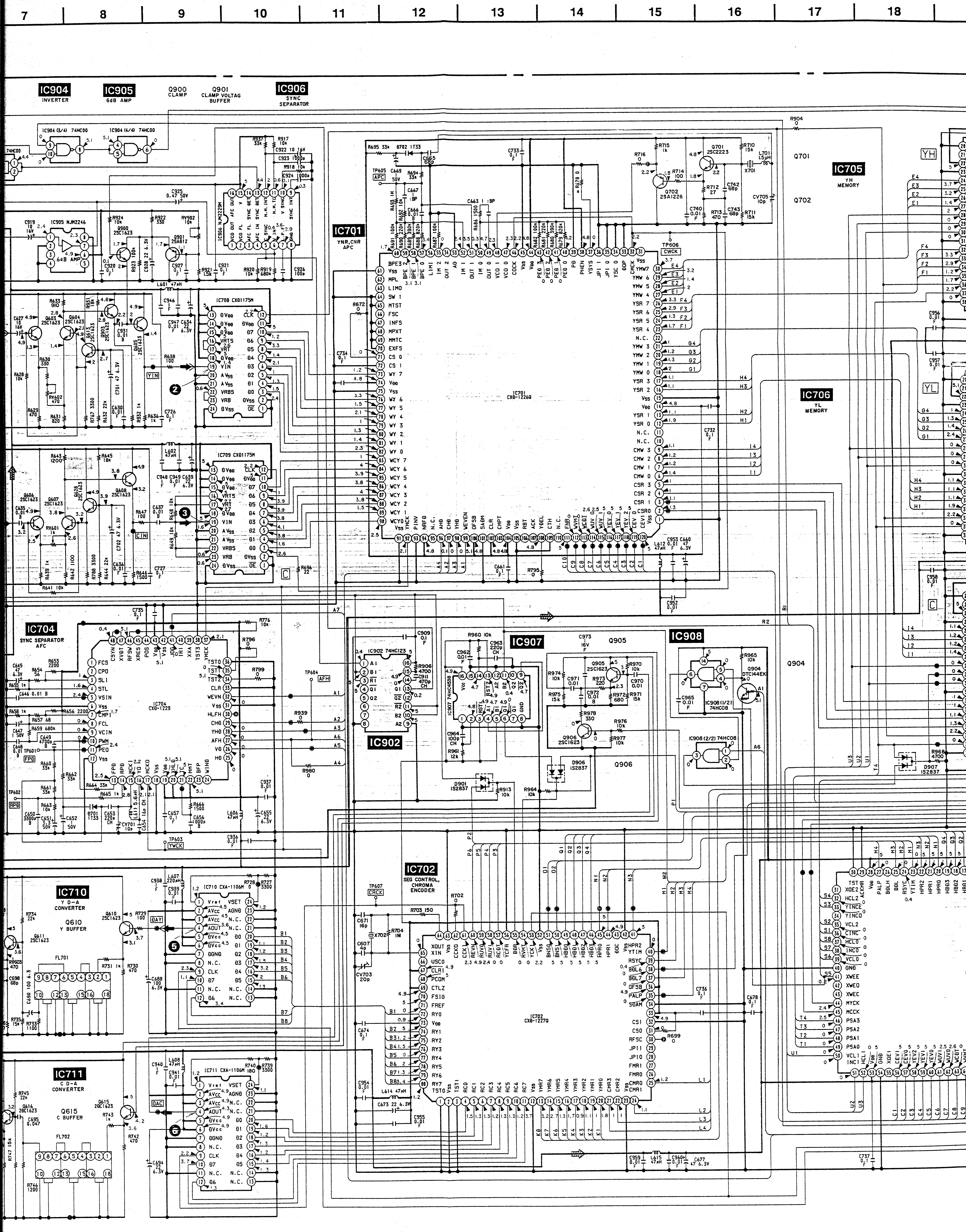
09

## MM-25 (DIGITAL PICTURE PROCESS) SCHEMATIC DIAGRAM

— Ref. No. MM-25 BOARD: 16000 series —



1
2
3
4
5
6
7
8
A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
no mark : REC/PB mode
CN001 (BLK)
REF V0
O/E
CS0
WEN
SYNC DET
SCK 0
S0 0
GND
C SYNC
GND
TO MC-81 BOARD CN012
(See Page 194)
FL900
FL901
FL902
FL903
FL904
FL905
FL906
FL907
IC900
SYNC SEPARATOR
IC900 LM1881M
R901 680k
C902 0.1 50
R912 47k
IC904
INVERTER
IC904 (1/4) 74HC00
IC904 (2/4) 74HC00
IC904 (3/4) 74HC00
R902 1k
R903 1k
C903 0.1 F
C914
C901
Q603,604, 613,903
Y AMP
Q605
CLAMP
IC708
Y A-D CONVERTER
Q606-608,628
C AMP
IC709
C A-D CONVERTER
R944 0
R945 0
L900 47μH
R935 100
C900 47 6.3V
C919 10 16V
IC905 NJM2246
6dB AMP
IC905
6dB AMP
R924 10k
CN003 (BLK)
Y OUT
GND
C OUT
GND
Y IN
GND
C IN
GND
TO AN-2P BOARD CN002
(See Page 181)
IC704
SYNC SEPARATOR AFC
FCS
CPO
SLI
STL
VSIN
Vss
CMP1
FCL
VCIN
PWM
PEO
Vss
Q609
LPF
Q609 2SA812
L617 150μH
R650 470
R652 3300
L604 47μH
C934 0.01
C935 0.01
C640 100 6.3V
TP601
TP602
FP0
RP0
Q614,612,611
Y AMP
L605 47μH
C932 0.01
C933 0.01
C641 100 6.3V
IC710
Y D-A CONVERTER
Q610
Y BUFFER
Q611 2SC1623
Q614 2SC1623
Q612 2SC1623
FL701
RV603 470
CN002 (WHT)
REG 5V
GND
DIG 5V
DIG 5V
GND
GND
TO IG-14 BOARD CN005
(See Page 233)
FL601 103
FL602 103
LPF
L705 47μH
C620 0.01
C621 0.01
C750 100 6.3V
C642 100 6.3V
IC711
C D-A CONVERTER
Q615
C BUFFER
Q619
C BUFFER
Q618-616
C AMP
Q619 2SC1623
Q618 2SC1623
Q617 2SC1623
Q616 2SC1623
Q615 2SC1623
FL703
FL702
RV604 470
R780 270
R779 1k
09


7
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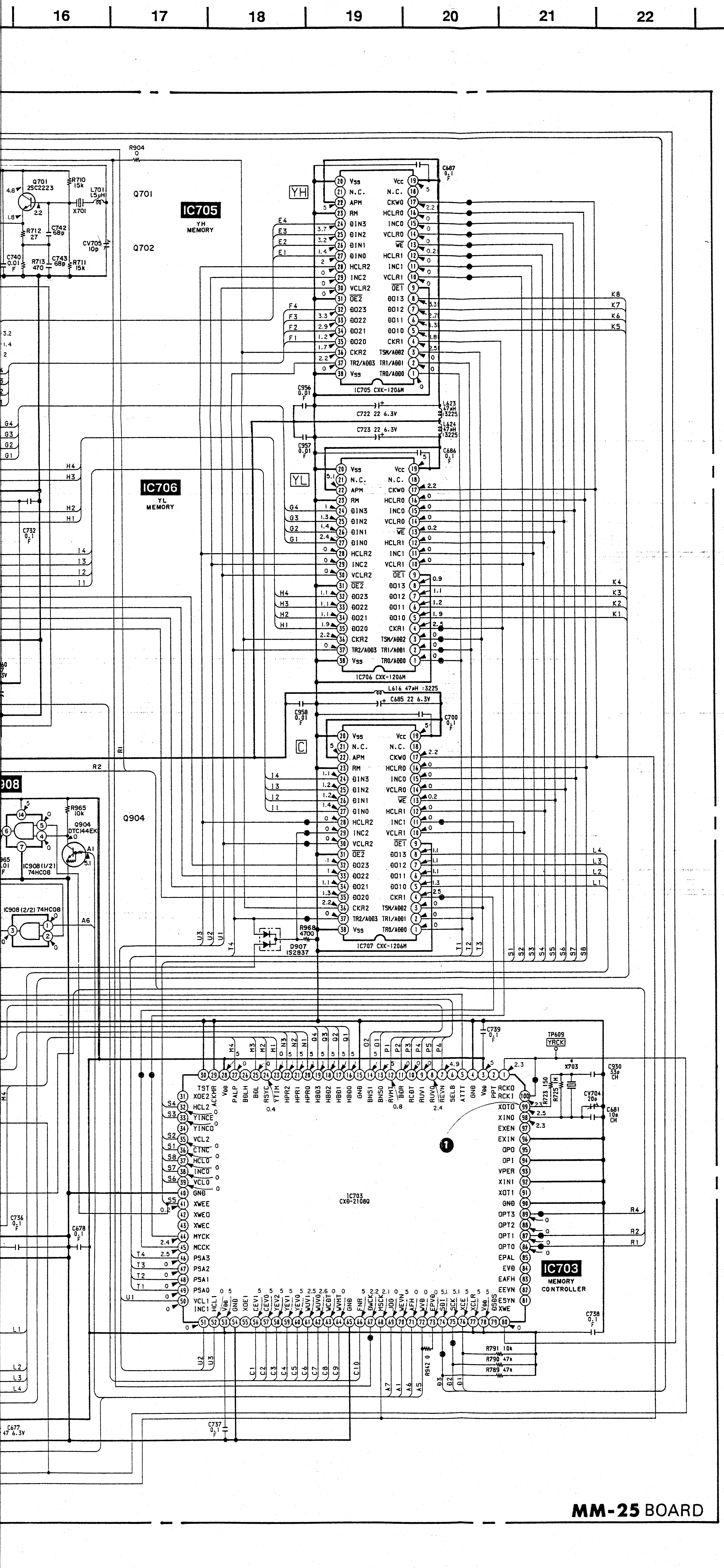
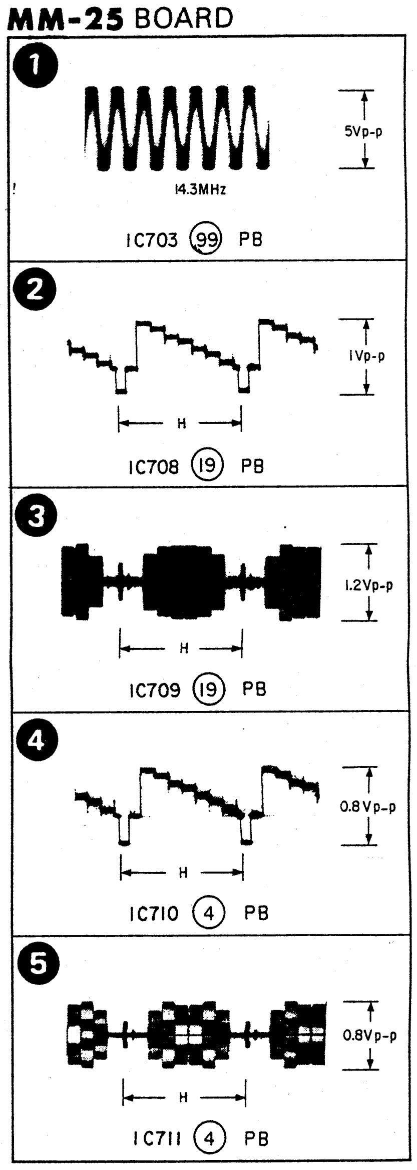
16
17
18
IC904 INVERTER
IC905 6dB AMP
Q900 CLAMP
Q901 CLAMP VOLTAG BUFFER
IC906 SYNC SEPARATOR
IC701 YNR,CNR APC
CX0-12260
IC705 YH MEMORY
IC706 YL MEMORY
Q701
Q702
IC708 CX01175M
IC709 CX01175M
IC704 SYNC SEPARATOR AFC
CX0-1229
IC902 74HC123
IC907 74HC4538
Q905
Q904
Q906
IC908 74HC08
IC702 SEG CONTROL, CHROMA ENCODER
CX0-12270
IC710 Y D-A CONVERTER
CXA-1106M
Q610 Y BUFFER
FL701
IC711 C D-A CONVERTER
CXA-1106M
Q615 C BUFFER
FL702
TP605 APC
TP606 CWCK
TP604 AFH
TP607 CRCK
TP602 RPD
TP601 FPD
TP603 YWCK
YIN
CIN
DAY
DAC
YH
YL
C
D901 1S2837
D906 1S2837
D907 1S2837


16
17
18
19
20
21
22
23
24
25
26
27
R904 0
Q701 2SC2223
R710 15k
L701 1.5μH
X701
C742 68p
R712 27
CV705 10p
C740 0.01 F
R713 470
C743 68p
R711 15k
Q701
Q702
IC705
YH MEMORY
YH
IC705 CXK-1206M
C687 0.1 F
C956 0.01 F
C722 22 6.3V
C723 22 6.3V
L623 47μH :3225
L624 47μH :3225
C957 0.01 F
C686 0.1 F
IC706
YL MEMORY
YL
IC706 CXK-1206M
L616 47μH :3225
C685 22 6.3V
C958 0.01 F
C700 0.1 F
C
IC707 CXK-1206M
R968 4700
D907 1S2837
IC908 (1/2) 74HC08
IC908 (2/2) 74HC08
Q904 DTC144EK
R965 10k
Q904
TP609 YRCK
X703
R723 150
R725 1M
CV704 20p
C930 33p CH
C681 10p CH
C739 0.1 F
IC703 CXD-2108Q
IC703
MEMORY CONTROLLER
C738 0.1 F
R791 10k
R790 47k
R789 47k
R942 0
C736 0.1 F
C678 0.1 F
C737 0.1 F
C677 47 6.3V
MM-25 BOARD

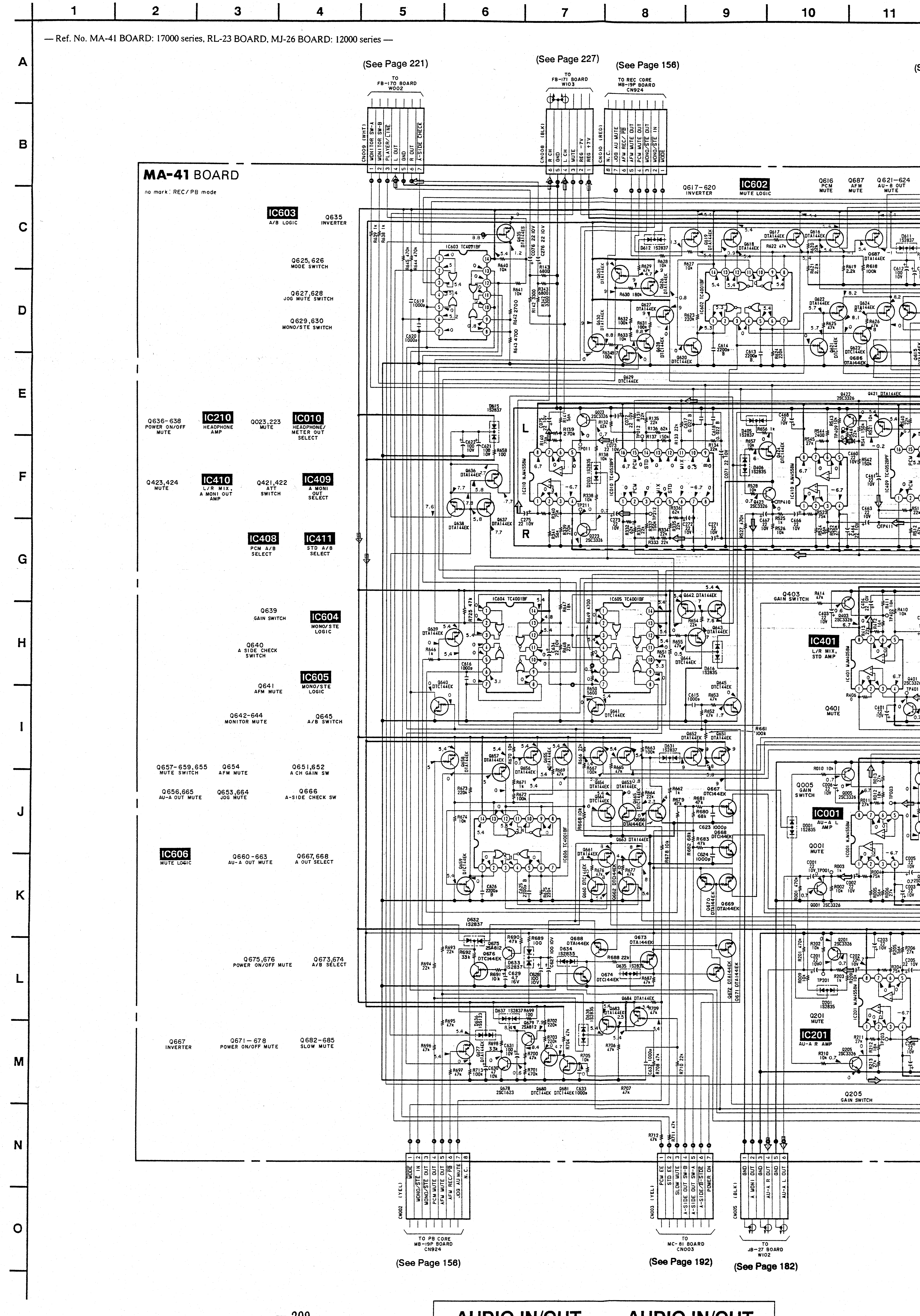


- **SIGNAL PATH**

| | VIDEO SIGNAL | | | AUDIO SIGNAL |
|---|---|---|---|---|
| | CHROMA | Y | Y/CHROMA/DATA | |
| REC | ➡ | ⇛ | | |
| PB | | | | |

## MA-41 (AUDIO IN/OUT), RL-23 (REC AUDIO LEVEL), MJ-26 (MIC JACK, MIC AMP) SCHEMATIC DIAGRAMS

— Ref. No. MA-41 BOARD: 17000 series, RL-23 BOARD, MJ-26 BOARD: 12000 series —


1
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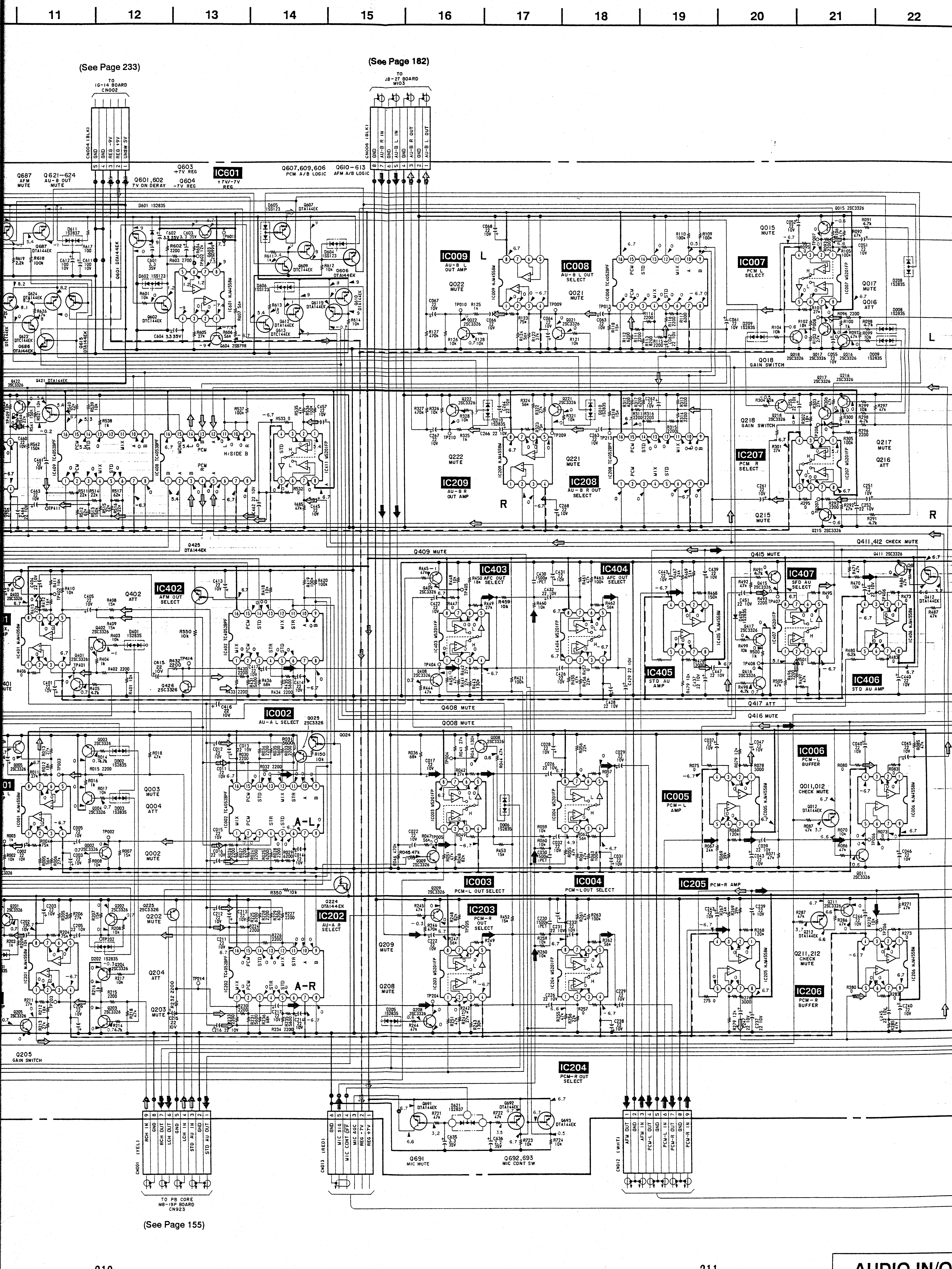
9
10
11
A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
(See Page 221)
TO FB-170 BOARD W002
(See Page 227)
TO FB-171 BOARD W103
(See Page 156)
TO REC CORE MB-19P BOARD CN924
CN009 (WHT)
MONITOR SW-A
MONITOR SW-B
PLAYER/LINE
L OUT
GND
R OUT
A-SIDE CHECK
CN008 (BLK)
R CH
GND
L CH
MUTE
REG -7V
REG +7V
CN010 (RED)
N.C.
JOG AU MUTE
AFM REC/PB
AFM MUTE OUT
PCM MUTE OUT
MONO/STE OUT
MONO/STE IN
MODE
MA-41 BOARD
no mark: REC/PB mode
IC603
A/B LOGIC
Q635
INVERTER
Q625,626
MODE SWITCH
Q627,628
JOG MUTE SWITCH
Q629,630
MONO/STE SWITCH
Q617-620
INVERTER
IC602
MUTE LOGIC
Q616
PCM MUTE
Q687
AFM MUTE
Q621-624
AU-B OUT MUTE
Q636-638
POWER ON/OFF MUTE
IC210
HEADPHONE AMP
Q023,223
MUTE
IC010
HEADPHONE/METER OUT SELECT
Q423,424
MUTE
IC410
L/R MIX, A MONI OUT AMP
Q421,422
ATT SWITCH
IC409
A MONI OUT SELECT
IC408
PCM A/B SELECT
IC411
STD A/B SELECT
Q639
GAIN SWITCH
IC604
MONO/STE LOGIC
Q640
A SIDE CHECK SWITCH
IC605
MONO/STE LOGIC
Q641
AFM MUTE
Q642-644
MONITOR MUTE
Q645
A/B SWITCH
Q403
GAIN SWITCH
IC401
L/R MIX, STD AMP
Q401
MUTE
Q657-659,655
MUTE SWITCH
Q654
AFM MUTE
Q651,652
A CH GAIN SW
Q656,665
AU-A OUT MUTE
Q653,664
JOG MUTE
Q666
A-SIDE CHECK SW
Q005
GAIN SWITCH
IC001
AU-A L AMP
Q001
MUTE
IC606
MUTE LOGIC
Q660-663
AU-A OUT MUTE
Q667,668
A OUT SELECT
Q675,676
POWER ON/OFF MUTE
Q673,674
A/B SELECT
Q201
MUTE
IC201
AU-A R AMP
Q667
INVERTER
Q671-678
POWER ON/OFF MUTE
Q682-685
SLOW MUTE
Q205
GAIN SWITCH
L
R
CN002 (YEL)
MODE
MONO/STE IN
MONO/STE OUT
PCM MUTE OUT
AFM MUTE OUT
AFM REC/PB
JOG AU MUTE
N.C.
TO PB CORE MB-19P BOARD CN924
(See Page 156)
CN003 (YEL)
PCM EE
STD EE
SLOW MUTE
A-SIDE OUT SW-B
A-SIDE OUT SW-A
A-SIDE/B-SIDE
POWER ON
TO MC-81 BOARD CN003
(See Page 192)
CN005 (BLK)
GND
A MONI OUT
GND
AU-A R OUT
GND
AU-A L OUT
TO JB-27 BOARD W102
(See Page 182)


11
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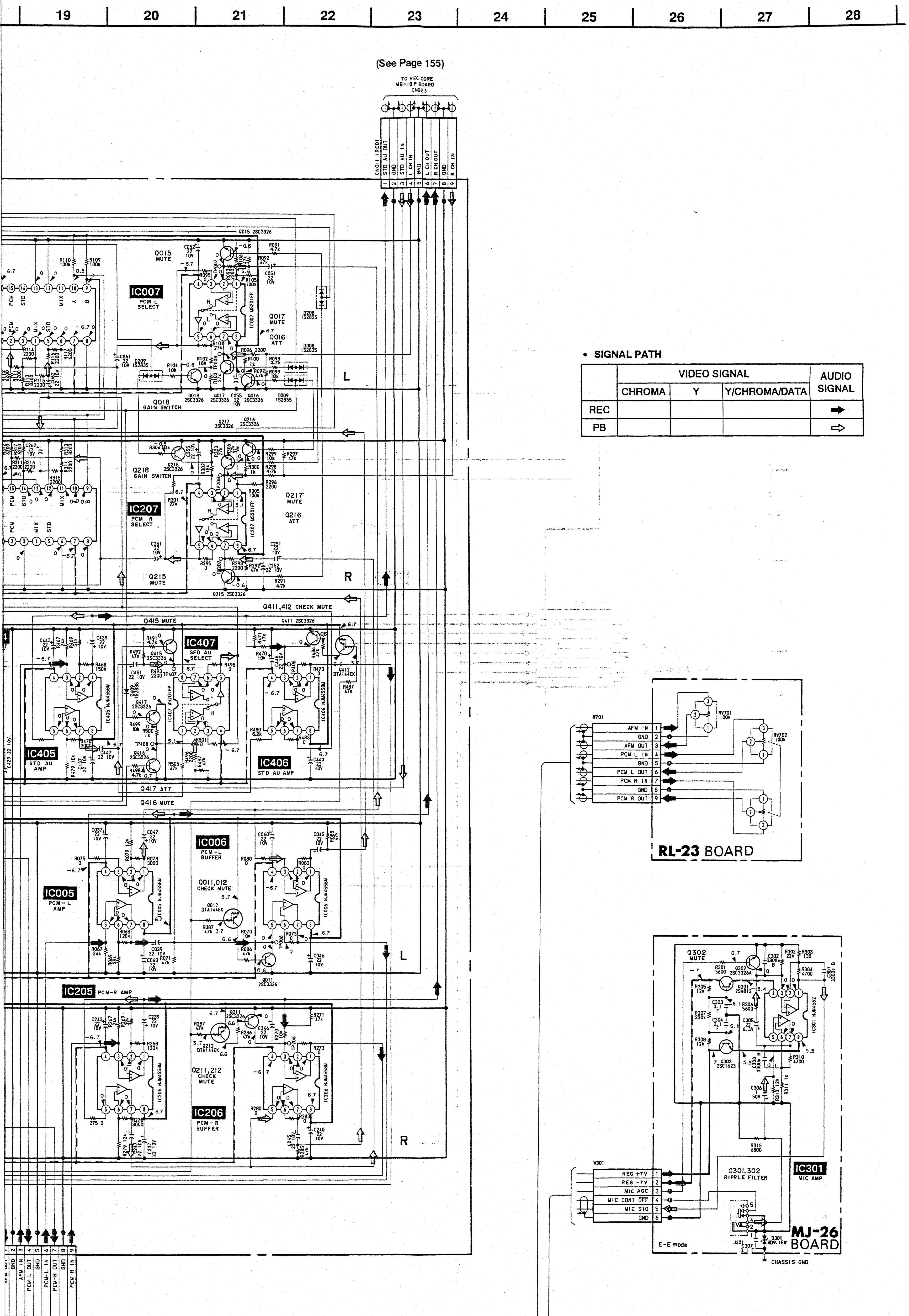
17
18
19
20
21
22
(See Page 233)
TO IG-14 BOARD CN002
(See Page 182)
TO JB-27 BOARD W103
IC601 +7V/-7V REG
Q603 +7V REG
Q601,602 7V ON DERAY
Q604 -7V REG
Q687 AFM MUTE
Q621-624 AU-B OUT MUTE
Q607,609,606 PCM A/B LOGIC
Q610-613 AFM A/B LOGIC
IC009 AU-B L OUT AMP
L
IC008 AU-B L OUT SELECT
IC007 PCM L SELECT
Q022 MUTE
Q021 MUTE
Q015 MUTE
Q017 MUTE
Q016 ATT
Q018 GAIN SWITCH
IC209 AU-B R OUT AMP
R
IC208 AU-B R OUT SELECT
IC207 PCM R SELECT
Q222 MUTE
Q221 MUTE
Q218 GAIN SWITCH
Q217 MUTE
Q216 ATT
Q215 MUTE
H:SIDE B
Q425 DTA144EK
Q409 MUTE
Q411,412 CHECK MUTE
IC402 AFM OUT SELECT
Q402 ATT
Q401
IC403 AFC OUT SELECT
IC404 AFC OUT SELECT
IC405 STD AU AMP
IC407 SFD AU SELECT
IC406 STD AU AMP
Q415 MUTE
Q417 ATT
Q408 MUTE
Q008 MUTE
Q416 MUTE
IC002 AU-A L SELECT
A-L
Q003 MUTE
Q004 ATT
Q002 MUTE
IC003 PCM-L OUT SELECT
IC004 PCM-L OUT SELECT
IC005 PCM-L AMP
IC006 PCM-L BUFFER
Q011,012 CHECK MUTE
IC202 AU-A R SELECT
A-R
Q202 MUTE
Q204 ATT
Q203 MUTE
Q205 GAIN SWITCH
IC203 PCM-R OUT SELECT
Q209 MUTE
Q208 MUTE
IC205 PCM-R AMP
IC206 PCM-R BUFFER
Q211,212 CHECK MUTE
IC204 PCM-R OUT SELECT
Q691 MIC MUTE
Q692,693 MIC CONT SW
CN001 (YEL)
RCH IN
GND
RCH OUT
LCH OUT
LCH IN
STD AU IN
GND
STD AU OUT
CN013 (RED)
GND
MIC SIG
MIC CONT OFF
MIC AGC
REG -7V
REG +7V
CN012 (WHT)
AFM OUT
GND
AFM IN
GND
PCM-L OUT
PCM-L IN
PCM-R OUT
GND
PCM-R IN
CN004 (BLK)
GND
GND
REG -9V
REG +9V
UNSW 5V
CN006 (BLK)
GND
AU-B R IN
GND
AU-B L IN
GND
AU-B R OUT
GND
AU-B L OUT
TO PB CORE MB-19P BOARD CN923
(See Page 155)

**AUDIO IN/O**


19
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26
27
28
(See Page 155)
TO REC CORE
MB-19P BOARD
CN923
CN011 (RED)
STD AU OUT
GND
STD AU IN
L CH IN
GND
L CH OUT
R CH OUT
GND
R CH IN
Q015 MUTE
IC007
PCM L SELECT
Q017 MUTE
Q016 ATT
Q018 GAIN SWITCH
L
Q218 GAIN SWITCH
IC207
PCM R SELECT
Q217 MUTE
Q216 ATT
Q215 MUTE
R
Q411,412 CHECK MUTE
Q415 MUTE
IC407
SFD AU SELECT
IC405
STD AU AMP
IC406
STD AU AMP
Q417 ATT
Q416 MUTE
IC006
PCM-L BUFFER
Q011,012 CHECK MUTE
IC005
PCM-L AMP
L
IC205 PCM-R AMP
Q211,212 CHECK MUTE
IC206
PCM-R BUFFER
R
GND
AFM IN
PCM-L OUT
GND
PCM-R OUT
GND
PCM-R IN
W701
AFM IN
GND
AFM OUT
PCM L IN
GND
PCM L OUT
PCM R IN
GND
PCM R OUT
RV701 100k
RV702 100k
RL-23 BOARD
Q302 MUTE
Q301,302 RIPRLE FILTER
IC301
MIC AMP
W301
REG +7V
REG -7V
MIC AGC
MIC CONT OFF
MIC SIG
GND
E-E mode
J301
D301 RD9.1EW
MJ-26 BOARD
CHASSIS GND

- **SIGNAL PATH**

| | VIDEO SIGNAL | | | AUDIO SIGNAL |
|---|---|---|---|---|
| | CHROMA | Y | Y/CHROMA/DATA | |
| REC | | | | ➡ |
| PB | | | | ⇨ |

AUDIO IN/OUT AUDIO IN/OUT

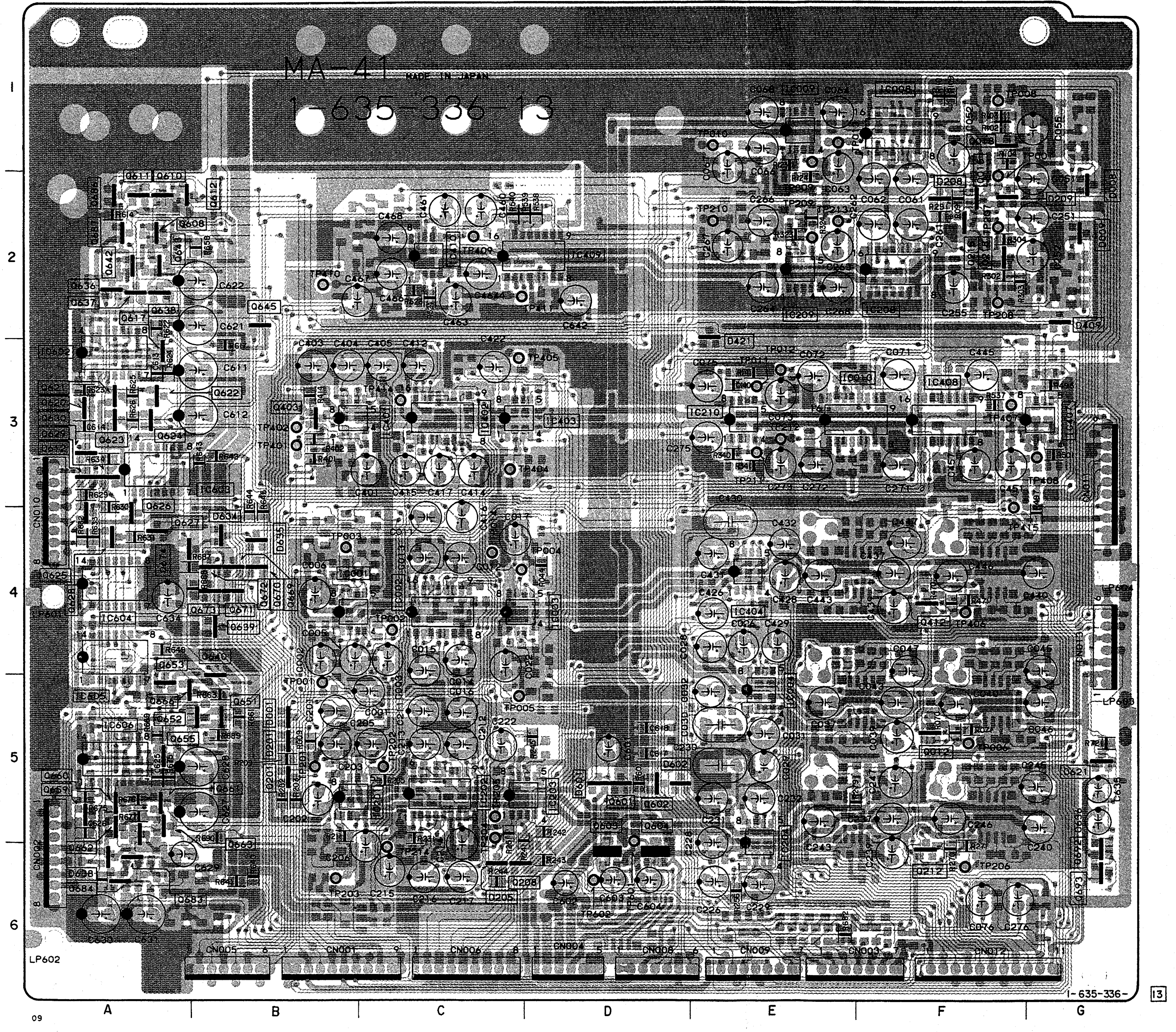
## MA-41 (AUDIO IN/OUT), RL-23 (REC AUDIO LEVEL), MJ-26 (MIC JACK, MIC AMP) PRINTED WIRING BOARDS

— Ref. No. MA-41 BOARD: 17000 series, RL-23 BOARD, MJ-26 BOARD: 12000 series —

| MA-41 BOARD (COMPONENT SIDE) | |
|---|---|
| D001 | B-5 |
| D008 | G-2 |
| D009 | G-2 |
| D201 | B-5 |
| D205 | C-6 |
| D206 | D-5 |
| D208 | F-2 |
| D209 | F-2 |
| D409 | G-2 |
| D601 | D-5 |
| D602 | D-5 |
| D603 | A-2 |
| D607 | A-2 |
| D612 | A-3 |
| D621 | G-5 |
| D634 | B-4 |
| D635 | B-4 |
| D638 | A-6 |
| IC001 | B-4 |
| IC002 | C-4 |
| IC003 | C-4 |
| IC004 | E-5 |
| IC008 | F-1 |
| IC009 | E-1 |
| IC010 | E-3 |
| IC201 | B-5 |
| IC202 | C-5 |
| IC203 | C-5 |
| IC204 | E-5 |
| IC208 | F-2 |
| IC209 | E-2 |
| IC210 | E-3 |
| IC401 | B-3 |
| IC402 | C-3 |
| IC403 | C-3 |
| IC404 | E-4 |
| IC407 | G-3 |
| IC408 | F-3 |
| IC409 | D-2 |
| IC410 | C-2 |
| IC602 | A-3 |
| IC603 | A-3 |
| IC604 | G-3 |
| IC605 | G-4 |
| IC606 | A-5 |
| Q012 | F-5 |
| Q015 | F-2 |
| Q018 | F-1 |
| Q201 | B-5 |
| Q208 | C-6 |
| Q212 | F-6 |
| Q215 | F-2 |
| Q218 | F-2 |
| Q403 | B-3 |
| Q412 | F-4 |
| Q601 | D-5 |
| Q602 | D-5 |
| Q603 | D-6 |
| Q604 | D-6 |
| Q608 | A-2 |
| Q610 | A-2 |
| Q611 | A-2 |
| Q612 | A-2 |
| Q617 | A-2 |
| Q620 | A-3 |
| Q621 | A-3 |
| Q622 | A-3 |
| Q623 | A-3 |
| Q624 | A-3 |
| Q625 | A-4 |
| Q626 | A-4 |
| Q627 | A-4 |
| Q628 | A-4 |
| Q629 | A-3 |
| Q630 | A-3 |
| Q636 | A-2 |
| Q637 | A-2 |
| Q638 | A-2 |
| Q639 | B-4 |
| Q640 | B-4 |
| Q642 | A-2 |
| Q643 | A-2 |
| Q645 | B-2 |
| Q651 | B-5 |
| Q652 | A-5 |
| Q653 | A-5 |
| Q655 | A-5 |
| Q659 | A-5 |
| Q660 | A-5 |
| Q661 | A-5 |
| Q662 | A-5 |
| Q663 | A-5 |
| Q673 | A-4 |
| Q674 | A-4 |
| Q682 | A-6 |
| Q683 | A-6 |
| Q684 | A-6 |
| Q685 | A-6 |
| Q692 | G-6 |
| Q693 | G-6 |

| MA-41 BOARD (CONDUCTOR SIDE) | |
|---|---|
| D002 | B-4 |
| D003 | C-4 |
| D005 | D-5 |
| D006 | D-4 |
| D010 | E-2 |
| D202 | B-5 |
| D203 | E-3 |
| D210 | E-2 |
| D401 | B-3 |
| D402 | B-3 |
| D405 | C-2 |
| D406 | B-2 |
| D604 | A-2 |
| D605 | A-2 |
| D606 | A-2 |
| D611 | B-3 |
| D615 | B-2 |
| D616 | A-2 |
| D631 | A-5 |
| D632 | A-5 |
| D633 | B-5 |
| D636 | A-5 |
| D637 | A-6 |
| IC005 | E-5 |
| IC006 | F-5 |
| IC007 | F-1 |
| IC205 | E-5 |
| IC206 | F-5 |
| IC207 | G-2 |
| IC405 | E-4 |
| IC406 | F-4 |
| IC411 | F-3 |
| IC601 | D-6 |
| Q001 | C-5 |
| Q002 | C-3 |
| Q003 | C-3 |
| Q004 | C-3 |
| Q005 | B-4 |
| Q008 | D-4 |
| Q009 | D-5 |
| Q011 | F-5 |
| Q016 | G-1 |
| Q017 | G-1 |
| Q021 | E-2 |
| Q022 | E-2 |
| Q023 | E-3 |
| Q202 | C-5 |
| Q203 | C-6 |
| Q204 | C-6 |
| Q205 | B-5 |
| Q209 | C-5 |
| Q211 | F-5 |
| Q216 | G-2 |
| Q217 | G-2 |
| Q221 | E-2 |
| Q222 | E-2 |
| Q223 | E-3 |
| Q401 | B-3 |
| Q402 | B-3 |
| Q408 | C-3 |
| Q409 | C-3 |
| Q411 | F-4 |
| Q415 | F-3 |
| Q416 | G-3 |
| Q417 | G-3 |
| Q421 | D-2 |
| Q422 | C-2 |
| Q423 | C-2 |
| Q424 | B-2 |
| Q606 | A-2 |
| Q607 | A-2 |
| Q609 | A-2 |
| Q613 | A-2 |
| Q615 | A-2 |
| Q616 | A-2 |
| Q618 | A-2 |
| Q619 | A-3 |
| Q635 | E-6 |
| Q641 | A-4 |
| Q644 | A-2 |
| Q654 | A-5 |
| Q656 | A-5 |
| Q657 | A-5 |
| Q658 | A-5 |
| Q664 | A-5 |
| Q665 | A-5 |
| Q667 | E-6 |
| Q668 | E-6 |
| Q675 | A-5 |
| Q676 | A-5 |
| Q677 | A-5 |
| Q678 | A-6 |
| Q679 | A-6 |
| Q680 | A-6 |
| Q681 | B-6 |
| Q691 | G-5 |

**MA-41** BOARD (COMPONENT SIDE)



* A-7062-215-B MA-41 BOARD, COMPLETE

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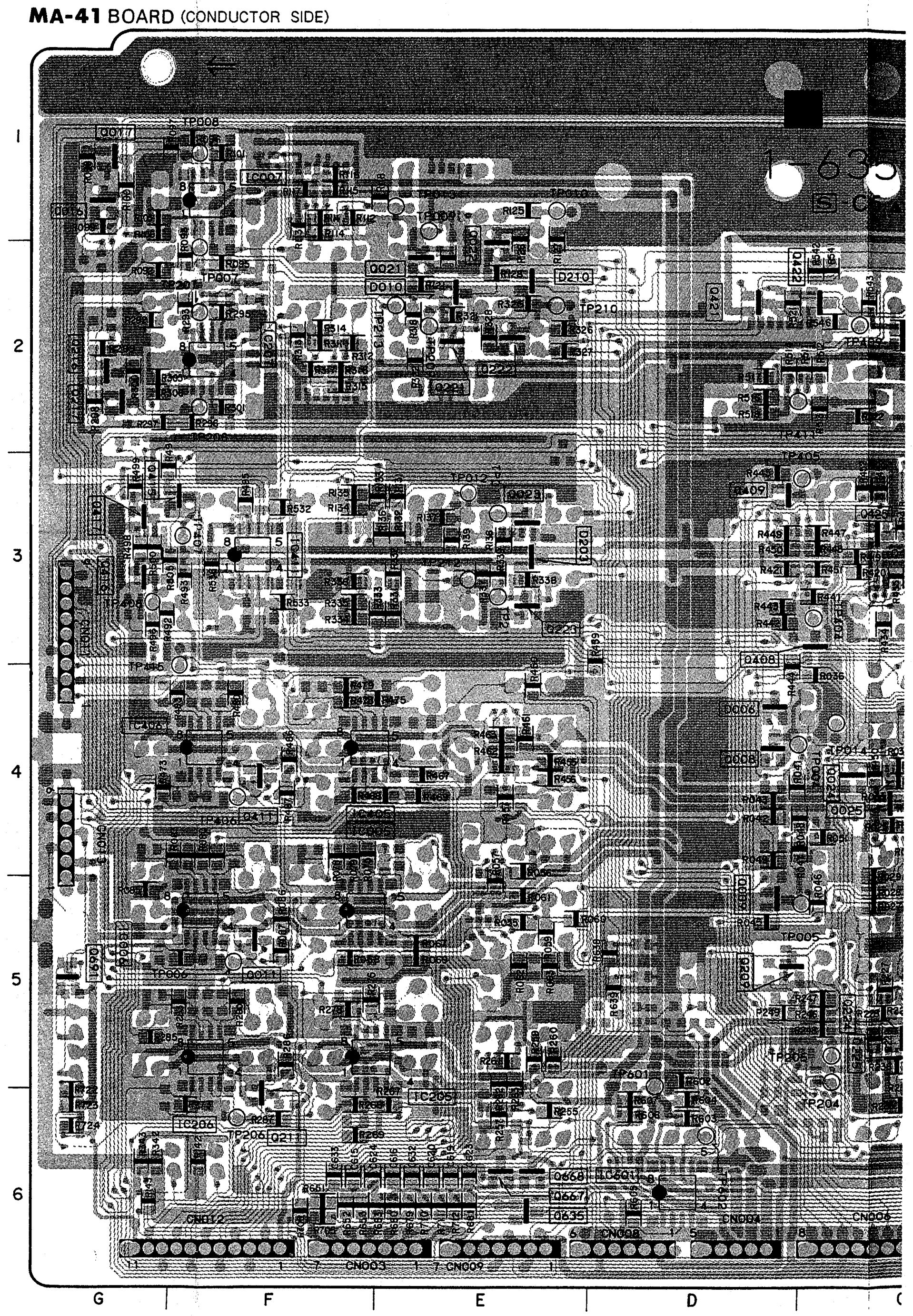
(Ref. No 17,000 Series)

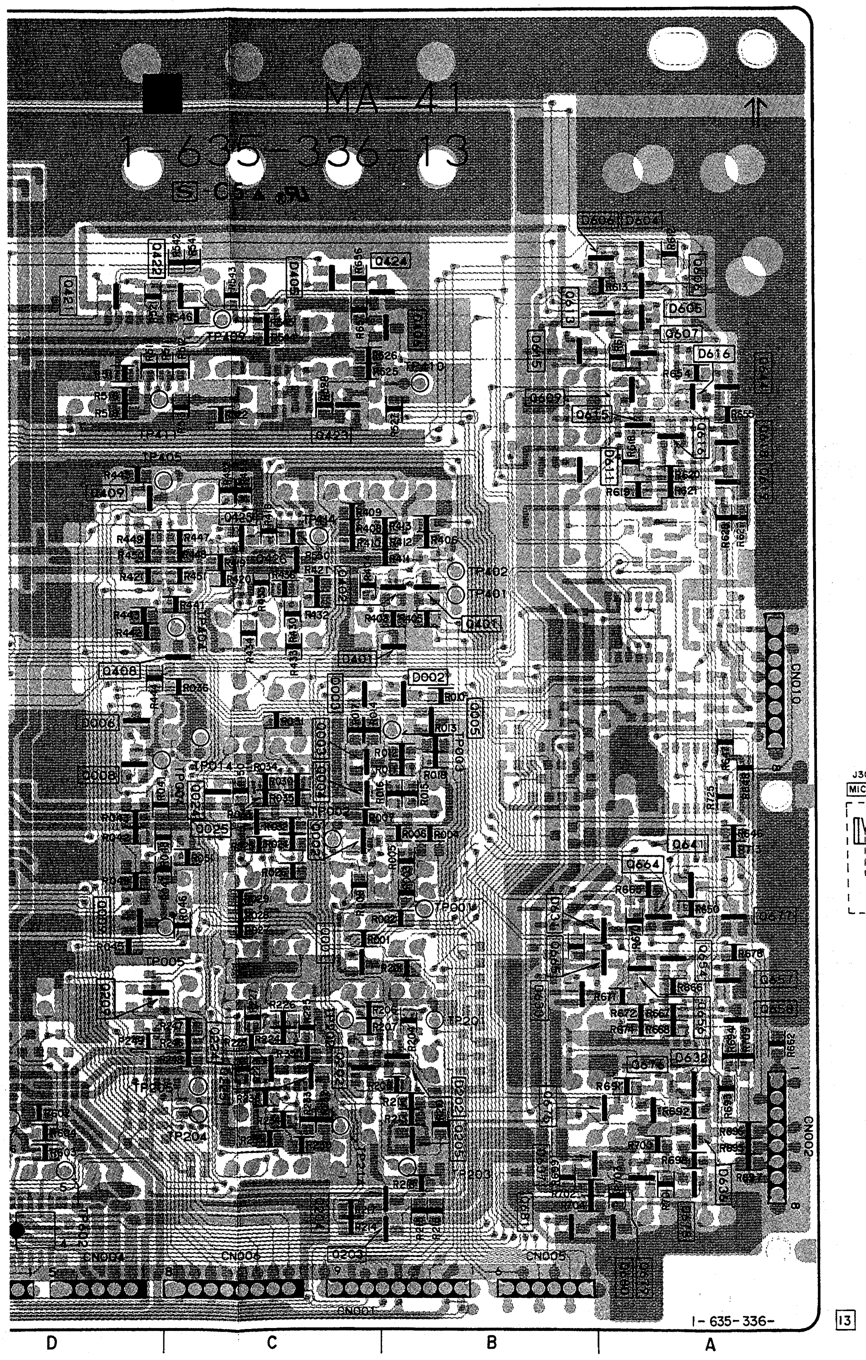
< DIODE >

| | | | |
|---|---|---|---|
| D001 | 8-719-104-34 | DIODE | 1S2836 |
| D002 | 8-719-104-34 | DIODE | 1S2836 |
| D003 | 8-719-104-34 | DIODE | 1S2836 |
| D006 | 8-719-104-34 | DIODE | 1S2836 |
| D008 | 8-719-104-34 | DIODE | 1S2836 |
| D009 | 8-719-104-34 | DIODE | 1S2836 |
| D010 | 8-719-104-34 | DIODE | 1S2836 |
| D201 | 8-719-104-34 | DIO | |
| D202 | 8-719-104-34 | DIO | |
| D203 | 8-719-104-34 | DIO | |
| D205 | 8-719-104-34 | DIO | |
| D208 | 8-719-104-34 | DIO | |
| D209 | 8-719-104-34 | DIO | |
| D210 | 8-719-104-34 | DIO | |
| D401 | 8-719-104-34 | DIO | |
| D405 | 8-719-400-18 | DIO | |
| D406 | 8-719-104-34 | DIO | |
| D409 | 8-719-104-34 | DIO | |
| D421 | 8-719-104-34 | DIO | |

**MA-41** BOARD (CONDUCTOR SIDE)



| | | | |
|---|---|---|---|
| D201 | 8-719-104-34 | DIODE | 1S2836 |
| D202 | 8-719-104-34 | DIODE | 1S2836 |
| D203 | 8-719-104-34 | DIODE | 1S2836 |
| D205 | 8-719-104-34 | DIODE | 1S2836 |
| D208 | 8-719-104-34 | DIODE | 1S2836 |
| D209 | 8-719-104-34 | DIODE | 1S2836 |
| D210 | 8-719-104-34 | DIODE | 1S2836 |
| D401 | 8-719-104-34 | DIODE | 1S2836 |
| D405 | 8-719-400-18 | DIODE | MA152WK |
| D406 | 8-719-104-34 | DIODE | 1S2836 |
| D409 | 8-719-104-34 | DIODE | 1S2836 |
| D421 | 8-719-104-34 | DIODE | 1S2836 |
| D601 | 8-719-104-34 | DIODE | 1S2836 |
| D602 | 8-719-800-76 | DIODE | 1SS226 |
| D604 | 8-719-800-76 | DIODE | 1SS226 |
| D605 | 8-719-800-76 | DIODE | 1SS226 |
| D606 | 8-719-800-76 | DIODE | 1SS226 |
| D611 | 8-719-400-18 | DIODE | MA152WK |
| D612 | 8-719-400-18 | DIODE | MA152WK |
| D615 | 8-719-400-18 | DIODE | MA152WK |
| D616 | 8-719-104-34 | DIODE | 1S2836 |
| D621 | 8-719-400-18 | DIODE | MA152WK |
| D631 | 8-719-400-18 | DIODE | MA152WK |
| D632 | 8-719-400-18 | DIODE | MA152WK |
| D633 | 8-719-400-18 | DIODE | MA152WK |
| D634 | 8-719-104-34 | DIODE | 1S2836 |
| D635 | 8-719-104-34 | DIODE | 1S2836 |
| D636 | 8-719-800-76 | DIODE | 1SS226 |
| D637 | 8-719-400-18 | DIODE | MA152WK |
| D638 | 8-719-104-34 | DIODE | 1S2836 |

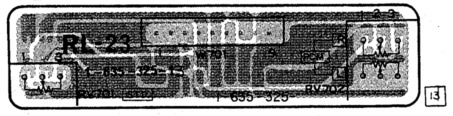


* 1-635-325-11 RL-23 BOARD
************
(Ref. No 12, 000 Series)

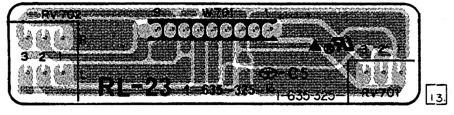
< IC >

| | | | |
|---|---|---|---|
| IC701 | 8-759-700-62 | IC | NJM4562D |

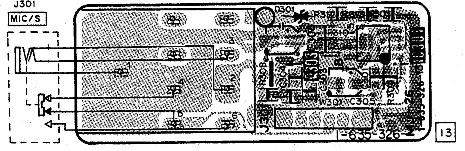
**RL-23** BOARD (COMPONENT SIDE)



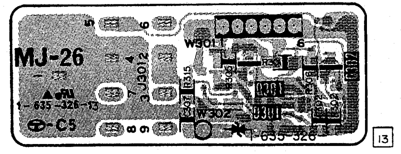
**RL-23** BOARD (CONDUCTOR SIDE)



**MJ-26** BOARD (COMPONENT SIDE)



**MJ-26** BOARD (CONDUCTOR SIDE)



* A-7062-225-A MJ-26 BOARD, COMPLETE
**********************
(Ref. No 12, 000 Series)

< DIODE >

| | | | |
|---|---|---|---|
| D301 | 8-719-108-12 | DIODE | RD9. 1E-W |

< IC >

| | | | |
|---|---|---|---|
| IC301 | 8-759-700-62 | IC | NJM4562D |

< TRANSISTOR >

| | | | |
|---|---|---|---|
| Q301 | 8-729-216-22 | TRANSISTOR | 2SA1162 |
| Q302 | 8-729-202-38 | TRANSISTOR | 2SC3326N |
| Q303 | 8-729-100-66 | TRANSISTOR | 2SC1623 |

< IC >

| | | | |
|---|---|---|---|
| IC001 | 8-759-981-92 | IC | NJM4558M |
| IC002 | 8-759-932-64 | IC | BU4052BF |
| IC003 | 8-759-603-27 | IC | M5201FP |
| IC004 | 8-759-603-27 | IC | M5201FP |
| IC005 | 8-759-981-92 | IC | NJM4558M |
| IC006 | 8-759-981-92 | IC | NJM4558M |
| IC007 | 8-759-603-27 | IC | M5201FP |
| IC008 | 8-759-932-64 | IC | BU4052BF |
| IC009 | 8-759-981-92 | IC | NJM4558M |
| IC010 | 8-759-932-64 | IC | BU4052BF |
| IC201 | 8-759-981-92 | IC | NJM4558M |
| IC202 | 8-759-932-64 | IC | BU4052BF |
| IC203 | 8-759-603-27 | IC | M5201FP |
| IC204 | 8-759-603-27 | IC | M5201FP |
| IC205 | 8-759-981-92 | IC | NJM4558M |
| IC206 | 8-759-981-92 | IC | NJM4558M |
| IC207 | 8-759-603-27 | IC | M5201FP |
| IC208 | 8-759-932-64 | IC | BU4052BF |
| IC209 | 8-759-981-92 | IC | NJM4558M |
| IC210 | 8-759-981-92 | IC | NJM4558M |
| IC401 | 8-759-981-92 | IC | NJM4558M |
| IC402 | 8-759-932-64 | IC | BU4052BF |
| IC403 | 8-759-603-27 | IC | M5201FP |
| IC404 | 8-759-603-27 | IC | M5201FP |
| IC405 | 8-759-981-92 | IC | NJM4558M |
| IC406 | 8-759-981-92 | IC | NJM4558M |
| IC407 | 8-759-603-27 | IC | M5201FP |
| IC408 | 8-759-300-71 | IC | TC4053BFHB |
| IC409 | 8-759-932-64 | IC | BU4052BF |
| IC410 | 8-759-981-92 | IC | NJM4558M |
| IC411 | 8-759-603-27 | IC | M5201FP |
| IC601 | 8-759-981-92 | IC | NJM4558M |
| IC602 | 8-759-200-67 | IC | TC4001BF |
| IC603 | 8-759-200-83 | IC | TC4071BF |
| IC604 | 8-759-200-67 | IC | TC4001BF |
| IC605 | 8-759-200-67 | IC | TC4001BF |
| IC606 | 8-759-200-67 | IC | TC4001BF |

< TRANSISTOR >

| | | | |
|---|---|---|---|
| Q001 | 8-729-202-38 | TRANSISTOR | 2SC3326N |
| Q002 | 8-729-202-38 | TRANSISTOR | 2SC3326N |
| Q003 | 8-729-202-38 | TRANSISTOR | 2SC3326N |
| Q004 | 8-729-202-38 | TRANSISTOR | 2SC3326N |
| Q005 | 8-729-202-38 | TRANSISTOR | 2SC3326N |
| Q008 | 8-729-202-38 | TRANSISTOR | 2SC3326N |
| Q009 | 8-729-202-38 | TRANSISTOR | 2SC3326N |
| Q011 | 8-729-202-38 | TRANSISTOR | 2SC3326N |
| Q012 | 8-729-901-06 | TRANSISTOR | DTA144EK |
| Q015 | 8-729-202-38 | TRANSISTOR | 2SC3326N |
| Q016 | 8-729-202-38 | TRANSISTOR | 2SC3326N |
| Q017 | 8-729-202-38 | TRANSISTOR | 2SC3326N |
| Q018 | 8-729-202-38 | TRANSISTOR | 2SC3326N |
| Q021 | 8-729-202-38 | TRANSISTOR | 2SC3326N |
| Q022 | 8-729-202-38 | TRANSISTOR | 2SC3326N |
| Q023 | 8-729-202-38 | TRANSISTOR | 2SC3326N |
| Q024 | 8-729-901-06 | TRANSISTOR | DTA144EK |
| Q025 | 8-729-202-38 | TRANSISTOR | 2SC3326N |
| Q201 | 8-729-202-38 | TRANSISTOR | 2SC3326N |
| Q202 | 8-729-202-38 | TRANSISTOR | 2SC3326N |
| Q203 | 8-729-202-38 | TRANSISTOR | 2SC3326N |
| Q204 | 8-729-202-38 | TRANSISTOR | 2SC3326N |
| Q205 | 8-729-202-38 | TRANSISTOR | 2SC3326N |
| Q208 | 8-729-202-38 | TRANSISTOR | 2SC3326N |
| Q209 | 8-729-202-38 | TRANSISTOR | 2SC3326N |
| Q211 | 8-729-202-38 | TRANSISTOR | 2SC3326N |
| Q212 | 8-729-901-06 | TRANSISTOR | DTA144EK |
| Q215 | 8-729-202-38 | TRANSISTOR | 2SC3326N |
| Q216 | 8-729-202-38 | TRANSISTOR | 2SC3326N |
| Q217 | 8-729-202-38 | TRANSISTOR | 2SC3326N |
| Q218 | 8-729-202-38 | TRANSISTOR | 2SC3326N |
| Q221 | 8-729-202-38 | TRANSISTOR | 2SC3326N |
| Q222 | 8-729-202-38 | TRANSISTOR | 2SC3326N |
| Q223 | 8-729-202-38 | TRANSISTOR | 2SC3326N |
| Q224 | 8-729-901-06 | TRANSISTOR | DTA144EK |
| Q225 | 8-729-202-38 | TRANSISTOR | 2SC3326N |
| Q401 | 8-729-202-38 | TRANSISTOR | 2SC3326N |
| Q402 | 8-729-202-38 | TRANSISTOR | 2SC3326N |
| Q403 | 8-729-202-38 | TRANSISTOR | 2SC3326N |
| Q408 | 8-729-202-38 | TRANSISTOR | 2SC3326N |
| Q409 | 8-729-202-38 | TRANSISTOR | 2SC3326N |
| Q411 | 8-729-202-38 | TRANSISTOR | 2SC3326N |
| Q412 | 8-729-901-06 | TRANSISTOR | DTA144EK |
| Q415 | 8-729-202-38 | TRANSISTOR | 2SC3326N |
| Q416 | 8-729-202-38 | TRANSISTOR | 2SC3326N |
| Q417 | 8-729-202-38 | TRANSISTOR | 2SC3326N |
| Q421 | 8-729-901-06 | TRANSISTOR | DTA144EK |
| Q422 | 8-729-202-38 | TRANSISTOR | 2SC3326N |
| Q423 | 8-729-202-38 | TRANSISTOR | 2SC3326N |
| Q424 | 8-729-901-01 | TRANSISTOR | DTC144EK |
| Q425 | 8-729-901-06 | TRANSISTOR | DTA144EK |
| Q426 | 8-729-202-38 | TRANSISTOR | 2SC3326N |
| Q601 | 8-729-901-06 | TRANSISTOR | DTA144EK |
| Q602 | 8-729-901-01 | TRANSISTOR | DTC144EK |
| Q603 | 8-729-140-75 | TRANSISTOR | 2SD999-CL |
| Q604 | 8-729-101-07 | TRANSISTOR | 2SB798-DLDK |
| Q606 | 8-729-901-06 | TRANSISTOR | DTA144EK |
| Q607 | 8-729-901-06 | TRANSISTOR | DTA144EK |
| Q608 | 8-729-901-06 | TRANSISTOR | DTA144EK |
| Q609 | 8-729-901-01 | TRANSISTOR | DTC144EK |
| Q610 | 8-729-901-06 | TRANSISTOR | DTA144EK |
| Q611 | 8-729-901-06 | TRANSISTOR | DTA144EK |
| Q612 | 8-729-901-06 | TRANSISTOR | DTA144EK |
| Q613 | 8-729-901-01 | TRANSISTOR | DTC144EK |
| Q615 | 8-729-901-06 | TRANSISTOR | DTA144EK |
| Q616 | 8-729-901-06 | TRANSISTOR | DTA144EK |
| Q617 | 8-729-901-06 | TRANSISTOR | DTA144EK |
| Q618 | 8-729-901-06 | TRANSISTOR | DTA144EK |
| Q619 | 8-729-901-06 | TRANSISTOR | DTA144EK |
| Q620 | 8-729-901-01 | TRANSISTOR | DTC144EK |
| Q621 | 8-729-901-01 | TRANSISTOR | DTC144EK |
| Q622 | 8-729-901-06 | TRANSISTOR | DTA144EK |
| Q623 | 8-729-901-01 | TRANSISTOR | DTC144EK |
| Q624 | 8-729-901-06 | TRANSISTOR | DTA144EK |
| Q625 | 8-729-901-06 | TRANSISTOR | DTA144EK |
| Q626 | 8-729-901-06 | TRANSISTOR | DTA144EK |
| Q627 | 8-729-901-06 | TRANSISTOR | DTA144EK |
| Q628 | 8-729-901-01 | TRANSISTOR | DTC144EK |
| Q629 | 8-729-901-01 | TRANSISTOR | DTC144EK |
| Q630 | 8-729-901-06 | TRANSISTOR | DTA144EK |
| Q635 | 8-729-901-06 | TRANSISTOR | DTA144EK |
| Q636 | 8-729-901-06 | TRANSISTOR | DTA144EK |
| Q637 | 8-729-901-06 | TRANSISTOR | DTA144EK |
| Q638 | 8-729-901-06 | TRANSISTOR | DTA144EK |
| Q639 | 8-729-901-06 | TRANSISTOR | DTA144EK |
| Q640 | 8-729-901-01 | TRANSISTOR | DTC144EK |
| Q641 | 8-729-901-01 | TRANSISTOR | DTC144EK |
| Q642 | 8-729-901-06 | TRANSISTOR | DTA144EK |
| Q643 | 8-729-901-06 | TRANSISTOR | DTA144EK |
| Q644 | 8-729-901-01 | TRANSISTOR | DTC144EK |
| Q645 | 8-729-901-01 | TRANSISTOR | DTC144EK |
| Q651 | 8-729-901-06 | TRANSISTOR | DTA144EK |
| Q652 | 8-729-901-06 | TRANSISTOR | DTA144EK |
| Q653 | 8-729-901-06 | TRANSISTOR | DTA144EK |
| Q654 | 8-729-901-06 | TRANSISTOR | DTA144EK |
| Q655 | 8-729-901-06 | TRANSISTOR | DTA144EK |
| Q656 | 8-729-901-06 | TRANSISTOR | DTA144EK |
| Q657 | 8-729-901-06 | TRANSISTOR | DTA144EK |
| Q658 | 8-729-901-06 | TRANSISTOR | DTA144EK |
| Q659 | 8-729-901-01 | TRANSISTOR | DTC144EK |
| Q660 | 8-729-901-01 | TRANSISTOR | DTC144EK |
| Q661 | 8-729-901-06 | TRANSISTOR | DTA144EK |
| Q662 | 8-729-901-01 | TRANSISTOR | DTC144EK |
| Q663 | 8-729-901-06 | TRANSISTOR | DTA144EK |
| Q664 | 8-729-901-01 | TRANSISTOR | DTC144EK |
| Q665 | 8-729-901-01 | TRANSISTOR | DTC144EK |
| Q666 | 8-729-901-01 | TRANSISTOR | DTC144EK |
| Q667 | 8-729-901-01 | TRANSISTOR | DTC144EK |
| Q668 | 8-729-901-01 | TRANSISTOR | DTC144EK |
| Q669 | 8-729-901-06 | TRANSISTOR | DTA144EK |
| Q670 | 8-729-901-06 | TRANSISTOR | DTA144EK |
| Q673 | 8-729-901-06 | TRANSISTOR | DTA144EK |
| Q674 | 8-729-901-01 | TRANSISTOR | DTC144EK |
| Q675 | 8-729-216-22 | TRANSISTOR | 2SA1162 |
| Q676 | 8-729-901-01 | TRANSISTOR | DTC144EK |
| Q677 | 8-729-901-06 | TRANSISTOR | DTA144EK |
| Q678 | 8-729-100-66 | TRANSISTOR | 2SC1623 |
| Q679 | 8-729-216-22 | TRANSISTOR | 2SA1162 |
| Q680 | 8-729-901-01 | TRANSISTOR | DTC144EK |
| Q681 | 8-729-901-01 | TRANSISTOR | DTC144EK |
| Q683 | 8-729-901-06 | TRANSISTOR | DTA144EK |
| Q684 | 8-729-901-06 | TRANSISTOR | DTA144EK |
| Q686 | 8-729-901-06 | TRANSISTOR | DTA144EK |
| Q687 | 8-729-901-06 | TRANSISTOR | DTA144EK |
| Q688 | 8-729-901-06 | TRANSISTOR | DTA144EK |
| Q691 | 8-729-901-06 | TRANSISTOR | DTA144EK |
| Q692 | 8-729-901-06 | TRANSISTOR | DTA144EK |
| Q693 | 8-729-901-06 | TRANSISTOR | DTA144EK |

* A-7062-219-A FB-170 BOARD, COMPLETE
***********************
(Ref. No 18, 000 Series)

< DIODE >

| | | | |
|---|---|---|---|
| D002 | 8-719-800-76 | DIODE | 1SS226 |
| D003 | 8-719-800-76 | DIODE | 1SS226 |
| D004 | 8-719-800-76 | DIODE | 1SS226 |
| D005 | 8-719-939-36 | DIODE | GL5HY42 (Hi 8) |
| D007 | 8-719-939-37 | DIODE | GL5EG42 (PCM) |
| D008 | 8-719-939-36 | DIODE | GL5HY42 (σο) |
| D010 | 8-719-939-36 | DIODE | GL5HY42 (SP) |
| D012 | 8-719-812-32 | DIODE | TLY123 (EJECT ⏏) |
| D013 | 8-719-939-36 | DIODE | GL5HY42 (JOG/S) |
| D014 | 8-719-939-36 | DIODE | GL5HY42 (JOG/S) |
| D015 | 8-719-918-76 | DIODE | SLR-34VR3 (REC ●) |
| D016 | 8-719-812-32 | DIODE | TLY123 (PAUSE ❚❚) |
| D017 | 8-719-812-32 | DIODE | TLY123 (FF ▶▶) |
| D018 | 8-719-920-05 | DIODE | TLG123A (PB ▶) |
| D019 | 8-719-812-32 | DIODE | TLY123 (REW ◀◀) |
| D026 | 8-719-812-32 | DIODE | TLY123 (STRAIGHT) |
| D027 | 8-719-812-32 | DIODE | TLY123 (PCM) |
| D028 | 8-719-812-32 | DIODE | TLY123 (MIX) |
| D029 | 8-719-812-32 | DIODE | TLY123 (STD) |
| D030 | 8-719-812-32 | DIODE | TLY123 (LOAD) |
| D031 | 8-719-812-31 | DIODE | TLR123 (SAVE) |
| D032 | 8-719-800-76 | DIODE | 1SS226 |
| D033 | 8-719-800-76 | DIODE | 1SS226 |
| D034 | 8-719-800-76 | DIODE | 1SS226 |
| D035 | 8-719-800-76 | DIODE | 1SS226 |
| D042 | 8-719-800-76 | DIODE | 1SS226 |
| D043 | 8-719-800-76 | DIODE | 1SS226 |
| D044 | 8-719-800-76 | DIODE | 1SS226 |
| D045 | 8-719-800-76 | DIODE | 1SS226 |

< IC >

| | | | |
|---|---|---|---|
| IC001 | 8-759-937-21 | IC | CXD1078M |
| IC002 | 8-759-927-46 | IC | uPD74HC00G |

< TRANSISTOR >

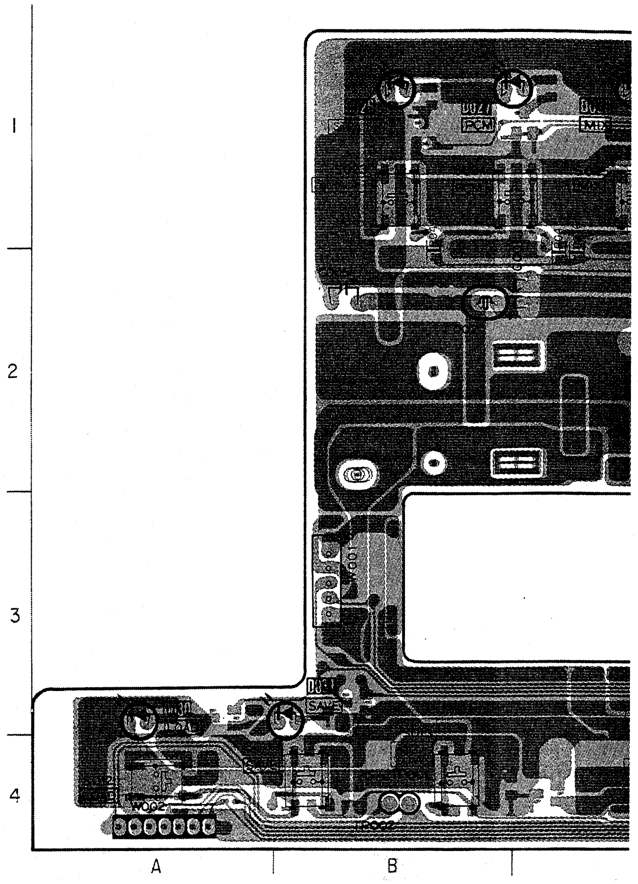
| | | | |
|---|---|---|---|
| Q002 | 8-729-901-06 | TRANSISTOR | DTA144EK |
| Q003 | 8-729-901-06 | TRANSISTOR | DTA144EK |
| Q004 | 8-729-901-06 | TRANSISTOR | DTA144EK |
| Q005 | 8-729-901-06 | TRANSISTOR | DTA144EK |
| Q006 | 8-729-901-06 | TRANSISTOR | DTA144EK |
| Q007 | 8-729-901-06 | TRANSISTOR | DTA144EK |
| Q009 | 8-729-901-01 | TRANSISTOR | DTC144EK |
| Q010 | 8-729-901-01 | TRANSISTOR | DTC144EK |
| Q011 | 8-729-100-66 | TRANSISTOR | 2SC1623 |
| Q012 | 8-729-100-66 | TRANSISTOR | 2SC1623 |

## FB-170 (REC DECK FUNCTION CONTROL), SA-30 (STILL ADJ VOLUME), CC-34 (CONTROLLER JACK) PRINTED WIRING

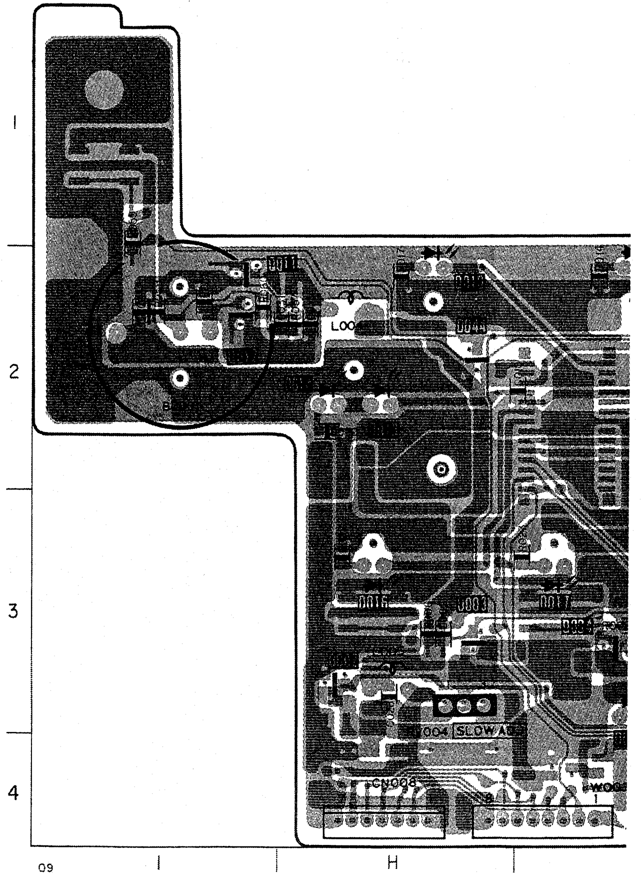
— Ref. No. FB-170 BOARD, SA-30 BOARD, CC-34 BOARD: 18000 series —

| FB-170 BOARD (COMPONENT SIDE) | | FB-170 BOARD (CONDUCTOR SIDE) | |
|---|---|---|---|
| D005 | D-2 | D002 | H-3 |
| D007 | C-2 | D003 | H-3 |
| D008 | E-2 | D004 | G-3 |
| D010 | B-2 | D032 | F-3 |
| D012 | E-2 | D033 | E-3 |
| D013 | B-2 | D034 | C-4 |
| D014 | B-2 | D035 | D-3 |
| D015 | G-2 | D042 | F-3 |
| D016 | H-3 | D043 | D-3 |
| D017 | G-3 | D044 | H-2 |
| D018 | G-3 | D045 | E-3 |
| D019 | F-3 | | |
| D026 | H-1 | Q002 | A-3 |
| D027 | H-1 | Q003 | B-3 |
| D028 | G-1 | Q004 | B-1 |
| D029 | G-1 | Q005 | C-1 |
| D030 | I-3 | Q006 | C-1 |
| D031 | H-3 | Q007 | D-1 |
| D045 | E-3 | Q009 | D-2 |
| | | Q010 | D-2 |
| IC001 | C-2 | Q012 | I-2 |
| IC002 | F-1 | | |

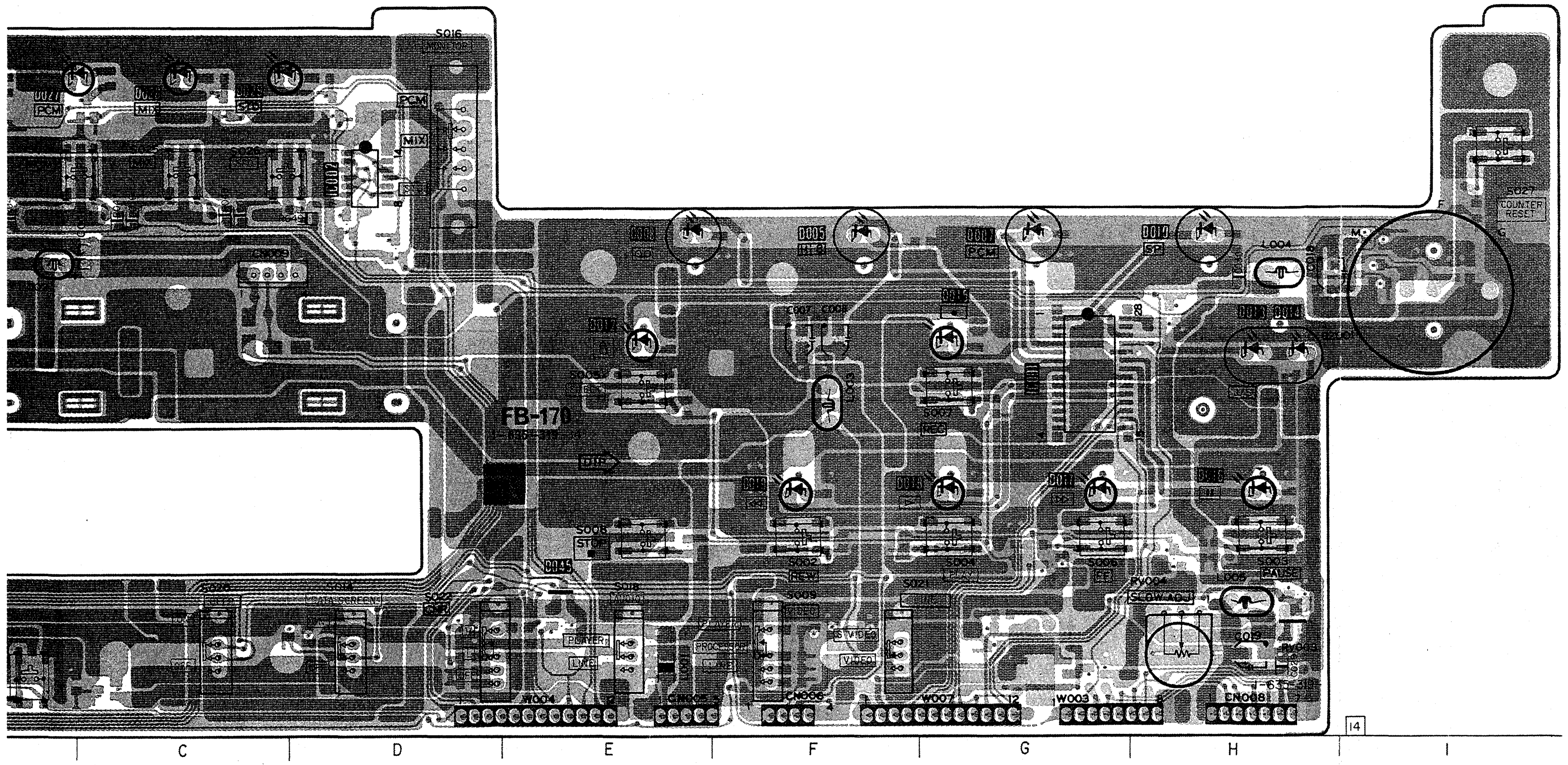
**FB-170** BOARD (COMPONENT SIDE)

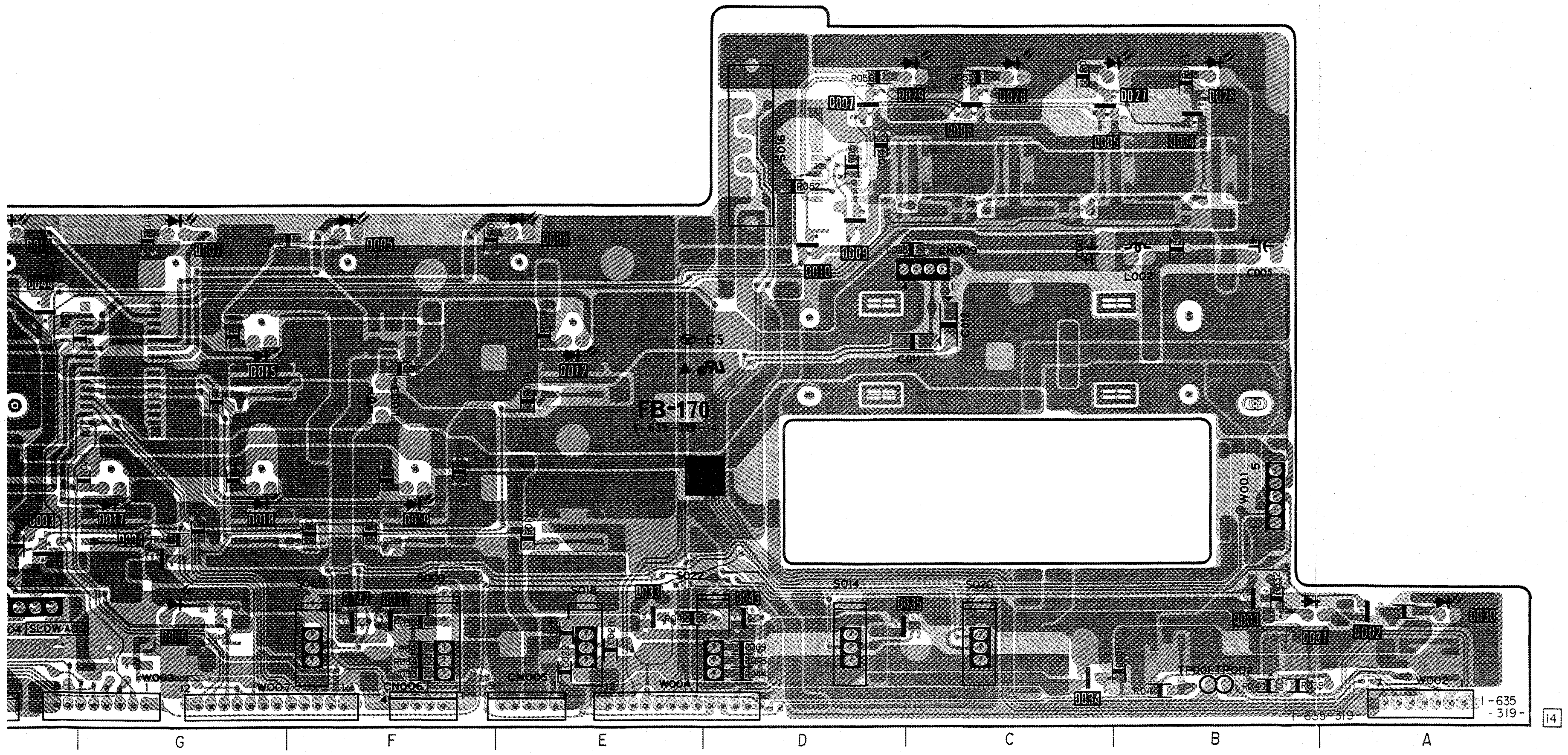


**FB-170** BOARD (CONDUCTOR SIDE)

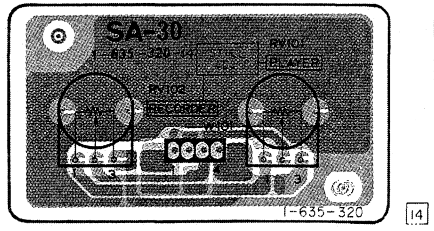


) PRINTED WIRING BOARDS

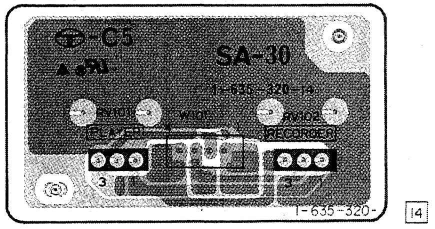

FB-170
S016
PCM
MIX
S027
COUNTER RESET
L004
STOP
PAUSE
SLOW ADJ
W004
W007
W003
CN008
14
C
D
E
F
G
H
I


FB-170
1-635-319-14
S016
L002
SLOW ADJ
W001
W002
W004
W005
W007
W003
1-635-319-
14
G
F
E
D
C
B
A

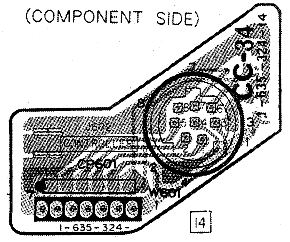
**SA-30** BOARD (COMPONENT SIDE)


SA-30
1-635-320-
RV101
PLAYER
RV102
RECORDER
1-635-320
14

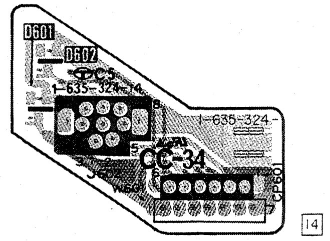
**SA-30** BOARD (CONDUCTOR SIDE)


SA-30
1-635-320-14
RV101
PLAYER
RV102
RECORDER
1-635-320-
14

**CC-34** BOARD
(COMPONENT SIDE)


CC-34
1-635-324-14
CP601
W601
1-635-324-
14

**CC-34** BOARD (CONDUCTOR SIDE)


D601
D602
1-635-324-14
1-635-324-
CC-34
CP601
14

* 1-635-324-11 CC-34 BOARD (Ref.No 18,000 Series)

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< DIODE >

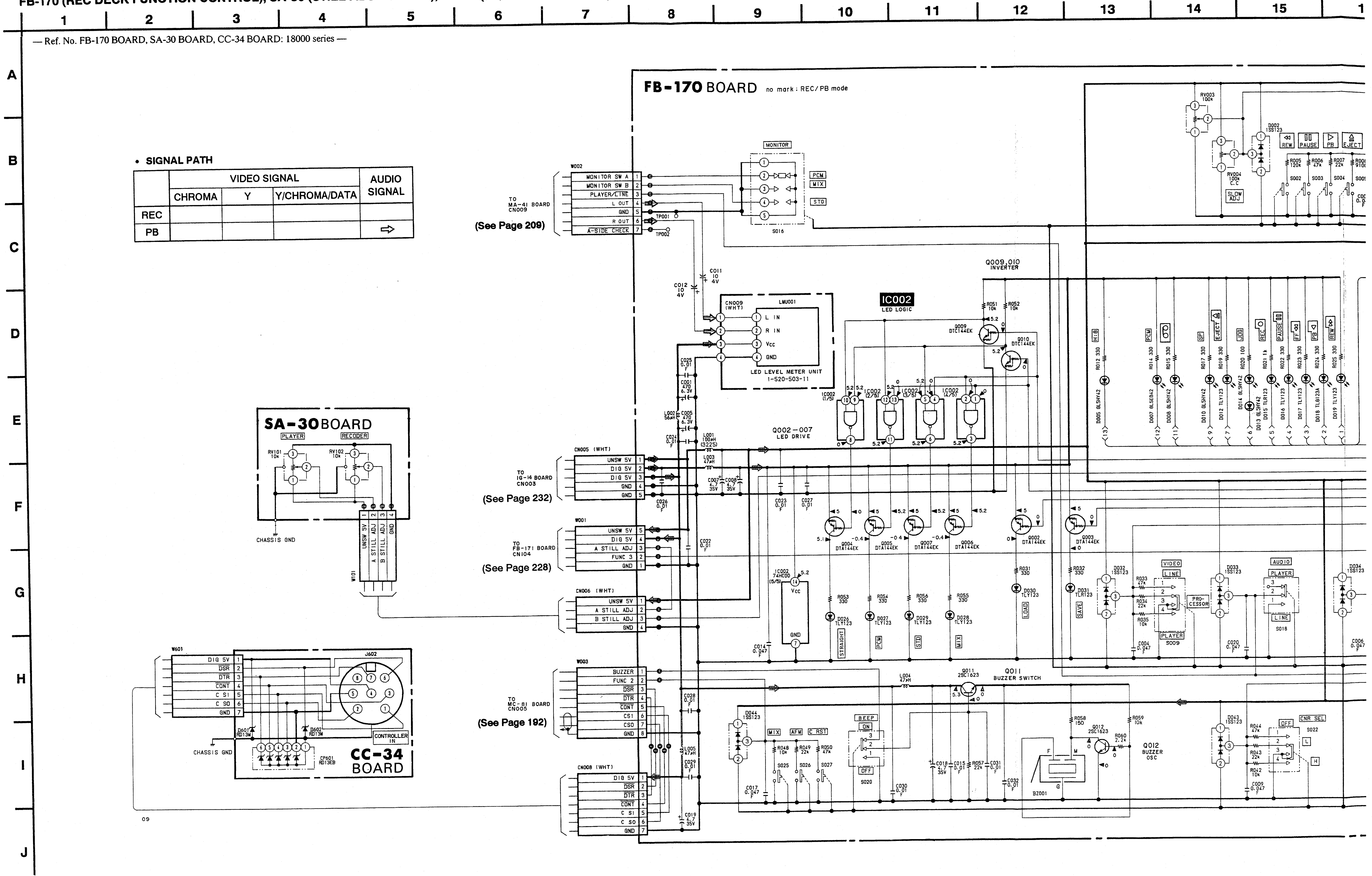
| | | | |
|---|---|---|---|
| D601 | 8-719-106-80 | DIODE | RD13M |
| D602 | 8-719-106-80 | DIODE | RD13M |

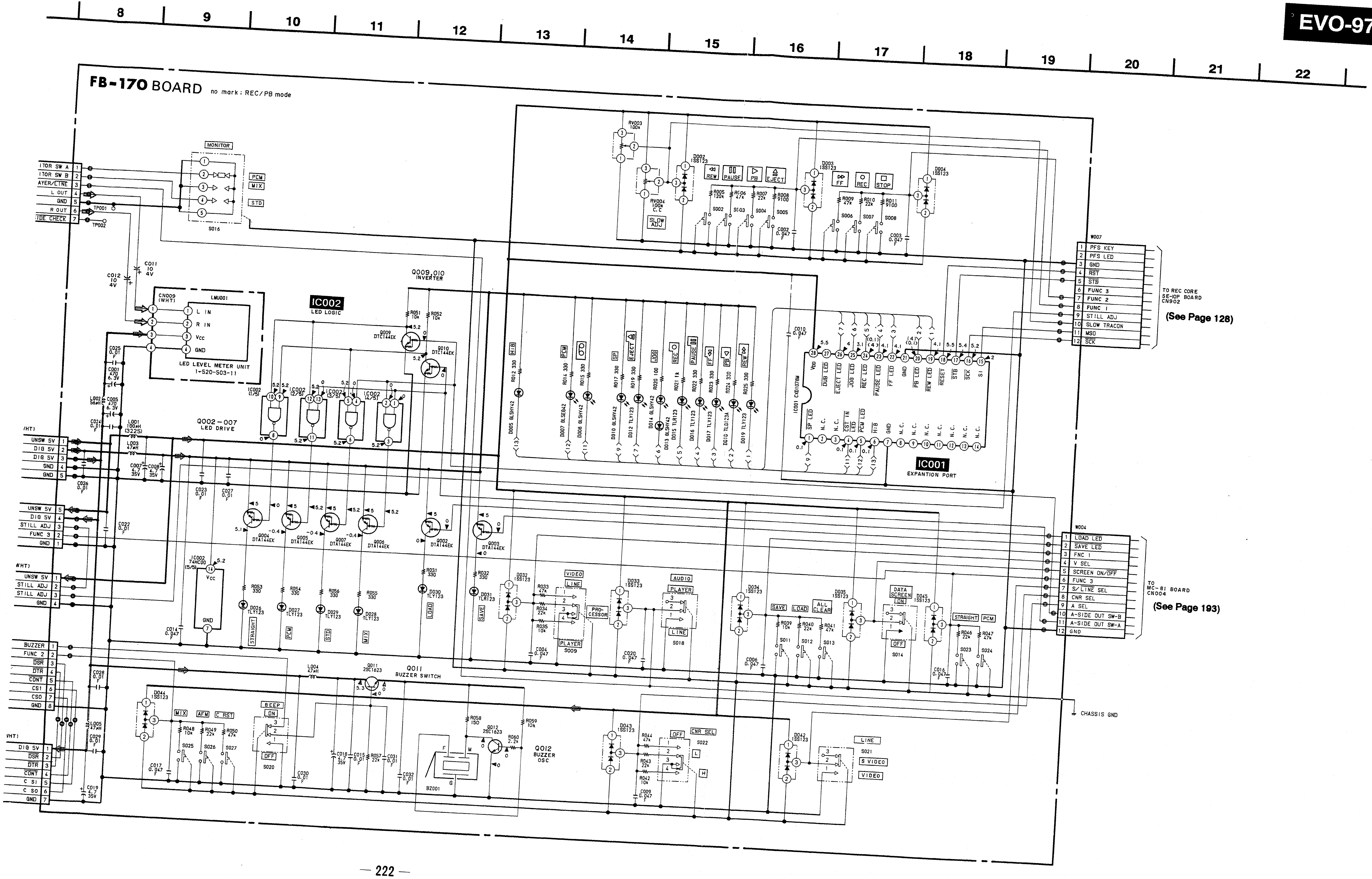
# FB-170 (REC DECK FUNCTION CONTROL), SA-30 (STILL ADJ VOLUME), CC-34 (CONTROLLER JACK) SCHEMATIC DIAGRAMS

— Ref. No. FB-170 BOARD, SA-30 BOARD, CC-34 BOARD: 18000 series —

- **SIGNAL PATH**

|  | VIDEO SIGNAL |  |  | AUDIO SIGNAL |
|---|---|---|---|---|
|  | CHROMA | Y | Y/CHROMA/DATA |  |
| REC |  |  |  |  |
| PB |  |  |  | ⇨ |


1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
A
B
C
D
E
F
G
H
I
J
FB-170 BOARD
no mark : REC/PB mode
SA-30 BOARD
PLAYER
RECODER
RV101 10k
RV102 10k
CHASSIS GND
CC-34 BOARD
CONTROLLER IN
J602
W601
D601 RD13M
D602 RD13M
CP601 RD13EB
W002
MONITOR SW A
MONITOR SW B
PLAYER/LINE
L OUT
GND
R OUT
A-SIDE CHECK
TO MA-41 BOARD CN009
(See Page 209)
TP001
TP002
MONITOR
PCM
MIX
STD
S016
CN009 (WHT)
LMU001
L IN
R IN
Vcc
GND
LED LEVEL METER UNIT 1-520-503-11
IC002
LED LOGIC
Q002-007 LED DRIVE
Q009,010 INVERTER
CN005 (WHT)
UNSW 5V
DIG 5V
GND
TO IG-14 BOARD CN003
(See Page 232)
W001
A STILL ADJ
FUNC 3
TO FB-171 BOARD CN104
(See Page 228)
CN006 (WHT)
B STILL ADJ
W003
BUZZER
FUNC 2
DSR
DTR
CONT
CS1
CSO
TO MC-81 BOARD CN005
(See Page 192)
CN008 (WHT)
C SI
C SO
Q011 BUZZER SWITCH
Q012 BUZZER OSC
BZ001
BEEP
ON
OFF
S020
MIX
AFM
C RST
S025
S026
S027
STRAIGHT
PCM
STD
MIX
LOAD
SAVE
VIDEO
LINE
PLAYER
S009
PRO-CESSOR
AUDIO
S018
CNR SEL
S022
REW
PAUSE
PB
EJECT
SLOW ADJ
RV003 100k
RV004 100k
Hi-B
SP
JOG
REC
FF
09


8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
FB-170 BOARD
no mark : REC/PB mode
MONITOR
PCM
MIX
STD
S016
CN009 (WHT)
LMU001
L IN
R IN
Vcc
GND
LED LEVEL METER UNIT
1-520-503-11
IC002
LED LOGIC
Q009,010
INVERTER
Q009 DTC144EK
Q010 DTC144EK
Q002-007
LED DRIVE
Q004 DTA144EK
Q005 DTA144EK
Q007 DTA144EK
Q006 DTA144EK
Q002 DTA144EK
Q003 DTA144EK
IC002 74HC00 (5/5)
STRAIGHT
PCM
STD
MIX
LOAD
SAVE
Q011
BUZZER SWITCH
Q011 2SC1623
Q012 2SC1623
Q012
BUZZER OSC
BZ001
BEEP
ON
OFF
S020
MIX
AFM
C RST
S025
S026
S027
RV003 100k
RV004 100k C.C
SLOW ADJ
REW
PAUSE
PB
EJECT
FF
REC
STOP
S002
S003
S004
S005
S006
S007
S008
IC001 CXD1078M
IC001
EXPANTION PORT
VDD
DUB LED
EJECT LED
JOG LED
REC LED
PAUSE LED
FF LED
GND
PB LED
REW LED
RESET
STB
SCK
SI
SP LED
N.C.
EST IN
PCM LED
HI8
VIDEO
LINE
PLAYER
PRO-CESSOR
S009
AUDIO
PLAYER
LINE
S018
SAVE
LOAD
ALL CLEAR
S011
S012
S013
DATA SCREEN
ON
OFF
S014
STRAIGHT
PCM
S023
S024
OFF
CNR SEL
L
H
S022
LINE
S VIDEO
VIDEO
S021
W007
1 PFS KEY
2 PFS LED
3 GND
4 RST
5 STB
6 FUNC 3
7 FUNC 2
8 FUNC 1
9 STILL ADJ
10 SLOW TRACON
11 MSO
12 SCK
TO REC CORE SE-IOP BOARD CN902
(See Page 128)
W004
1 LOAD LED
2 SAVE LED
3 FNC 1
4 V SEL
5 SCREEN ON/OFF
6 FUNC 3
7 S/LINE SEL
8 CNR SEL
9 A SEL
10 A-SIDE OUT SW-B
11 A-SIDE OUT SW-A
12 GND
TO MC-81 BOARD CN004
(See Page 193)
CHASSIS GND
ITOR SW A 1
ITOR SW B 2
AYER/LINE 3
L OUT 4
GND 5
R OUT 6
IDE CHECK 7
UNSW 5V 1
DIG 5V 2
DIG 5V 3
GND 4
GND 5
UNSW 5V 5
DIG 5V 4
STILL ADJ 3
FUNC 3 2
GND 1
UNSW 5V 1
STILL ADJ 2
STILL ADJ 3
GND 4
BUZZER 1
FUNC 2 2
DSR 3
DTR 4
CONT 5
CS1 6
CSO 7
GND 8
DIG 5V 1
DSR 2
DTR 3
CONT 4
C SI 5
C SO 6
GND 7

## FB-171 (PB DECK FUNCTION CONTROL), HE-3 (HEADPHONE JACK) PRINTED WIRING BOARDS

— Ref. No. FB-171 BOARD, HE-3 BOARD: 19000 series —

* A-7062-220-A FB-171 BOARD, COMPLETE
***********************
(Ref. No 19, 000 Series)

< DIODE >

| | | | |
|---|---|---|---|
| D101 | 8-719-920-05 | DIODE | TLG123A |
| D102 | 8-719-939-42 | DIODE | GL5HD42 |
| D104 | 8-719-800-76 | DIODE | 1SS226 |
| D105 | 8-719-800-76 | DIODE | 1SS226 |
| D106 | 8-719-800-76 | DIODE | 1SS226 |
| D107 | 8-719-800-76 | DIODE | 1SS226 |
| D109 | 8-719-812-32 | DIODE | TLY123 |
| D110 | 8-719-920-05 | DIODE | TLG123A |
| D111 | 8-719-812-32 | DIODE | TLY123 |
| D112 | 8-719-812-32 | DIODE | TLY123 |
| D113 | 8-719-939-36 | DIODE | GL5HY42 |
| D114 | 8-719-939-36 | DIODE | GL5HY42 |
| D115 | 8-719-812-32 | DIODE | TLY123 |
| D116 | 8-719-939-36 | DIODE | GL5HY42 |
| D118 | 8-719-812-31 | DIODE | TLR123 |
| D119 | 8-719-939-36 | DIODE | GL5HY42 |
| D120 | 8-719-939-37 | DIODE | GL5EG42 |
| D121 | 8-719-939-36 | DIODE | GL5HY42 |
| D122 | 8-719-800-76 | DIODE | 1SS226 |
| D123 | 8-719-104-34 | DIODE | 1S2835 |
| D124 | 8-719-104-34 | DIODE | 1S2835 |

< IC >

| | | | |
|---|---|---|---|
| IC101 | 8-759-937-21 | IC | CXD1078M |
| IC102 | 8-759-981-XX | IC | NJM4560M |
| IC103 | 8-759-300-71 | IC | TC4053BFHB |

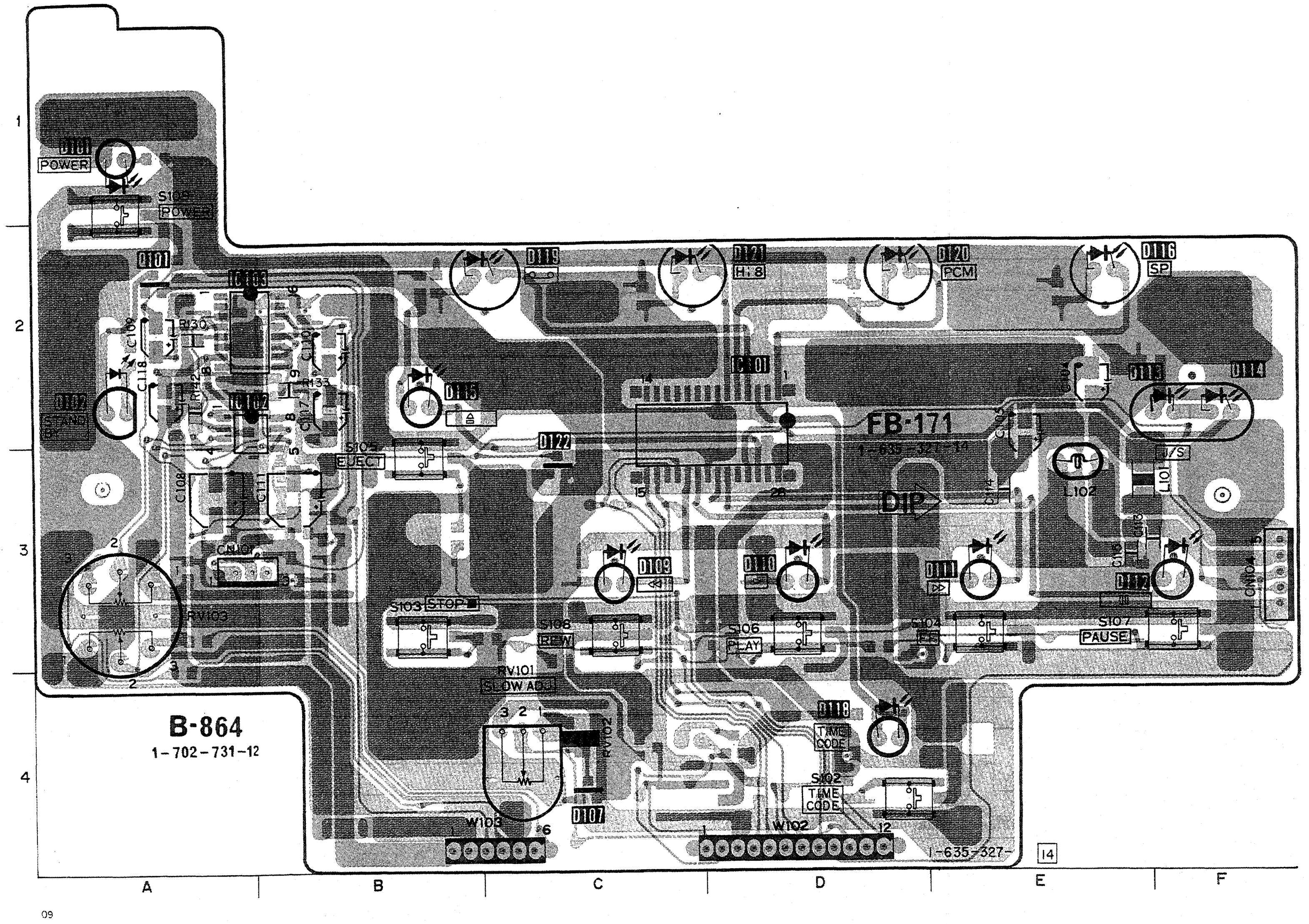
< TRANSISTOR >

| | | | |
|---|---|---|---|
| Q101 | 8-729-901-06 | TRANSISTOR | DTA144EK |
| Q103 | 8-729-100-66 | TRANSISTOR | 2SC1623 |
| Q104 | 8-729-216-22 | TRANSISTOR | 2SA1162 |
| Q105 | 8-729-901-01 | TRANSISTOR | DTC144EK |
| Q106 | 8-729-202-38 | TRANSISTOR | 2SC3326N |
| Q107 | 8-729-202-38 | TRANSISTOR | 2SC3326N |

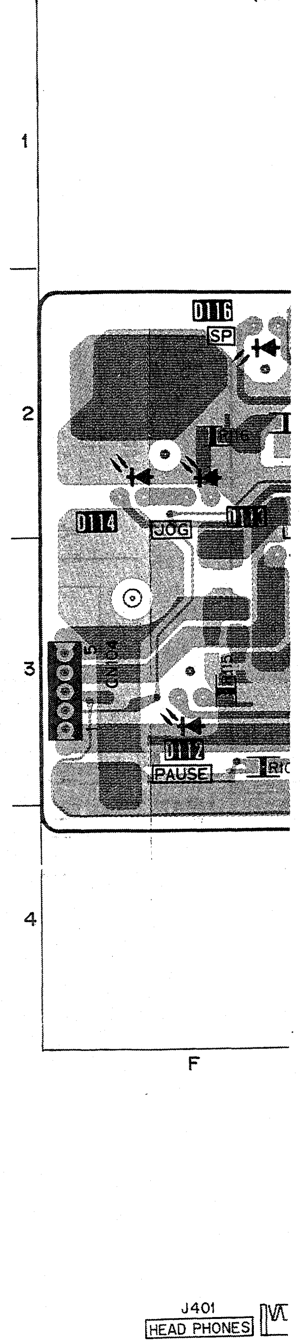
| FB-171 BOARD (COMPONENT SIDE) | |
|---|---|
| D101 | A-1 |
| D102 | A-2 |
| D107 | C-4 |
| D109 | C-3 |
| D110 | D-3 |
| D111 | E-3 |
| D112 | F-3 |
| D113 | F-2 |
| D114 | F-2 |
| D115 | B-2 |
| D116 | E-2 |
| D118 | D-4 |
| D119 | C-2 |
| D120 | D-2 |
| D121 | C-2 |
| D122 | C-3 |
| IC101 | D-2 |
| IC102 | A-2 |
| IC103 | A-2 |
| Q101 | A-2 |

| FB-171 BOARD (CONDUCTOR SIDE) | |
|---|---|
| D104 | D-4 |
| D105 | C-3 |
| D106 | E-3 |
| D123 | B-2 |
| D124 | B-3 |
| Q103 | B-2 |
| Q104 | B-2 |
| Q105 | B-2 |
| Q106 | B-3 |
| Q107 | B-3 |

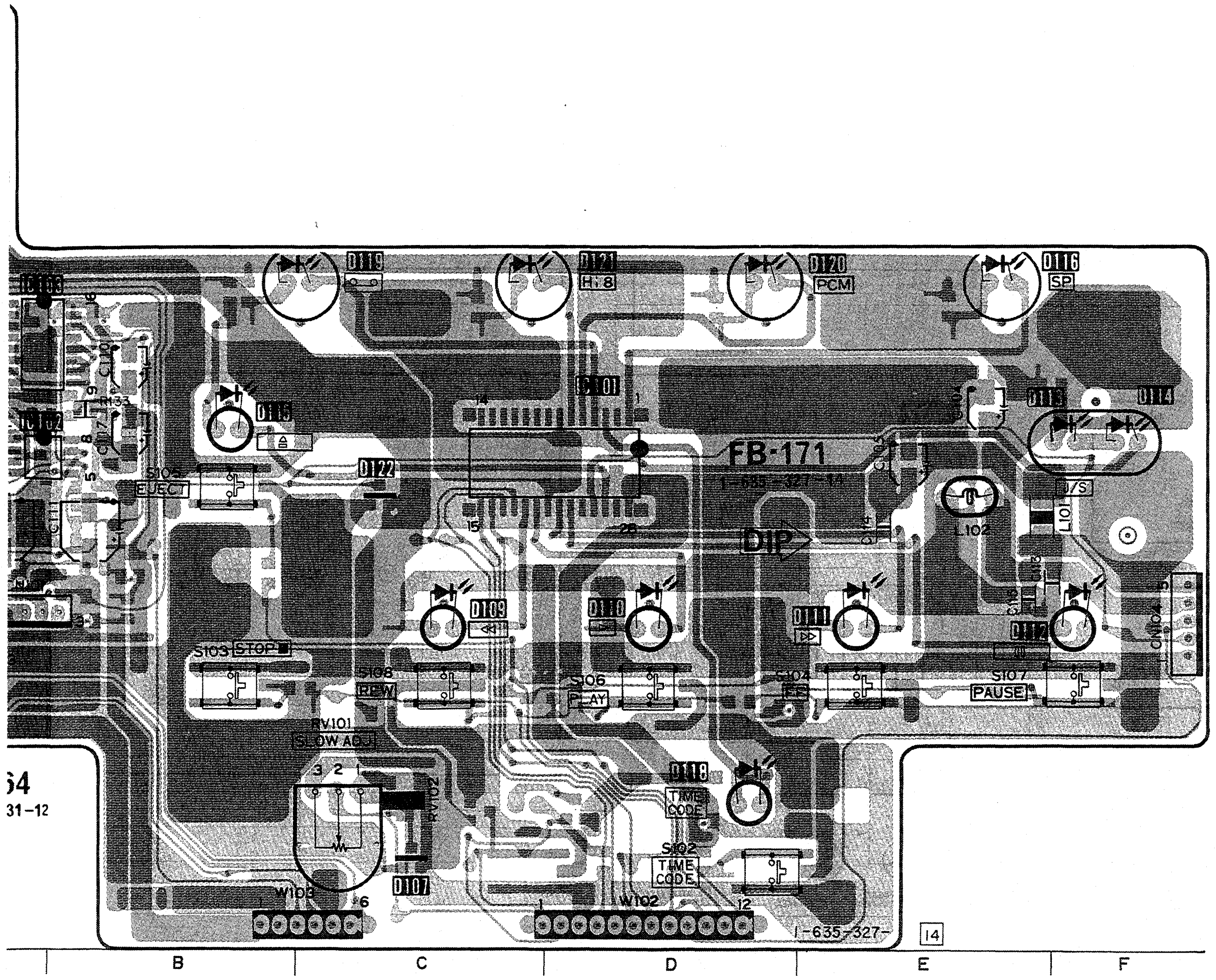
**FB-171** BOARD (COMPONENT SIDE)


1
2
3
4
D101
POWER
S101
POWER
D101
IC103
C106
C118
D102
STAND BY
IC102
C108
C111
CN101
RV103
D119
D115
S105
EJECT
D122
D121
H:8
D120
PCM
IC101
D116
SP
FB-171
1-635-327-11
DIP
L102
D113
D114
L101
D109
S103 STOP
S108 REW
D110
S106 PLAY
D111
S104 FF
D112
S107 PAUSE
CN104
RV101
SLOW ADJ
RV102
W103
D107
D118
TIME CODE
S102
TIME CODE
W102
B-864
1-702-731-12
1-635-327-
14
A
B
C
D
E
F
09

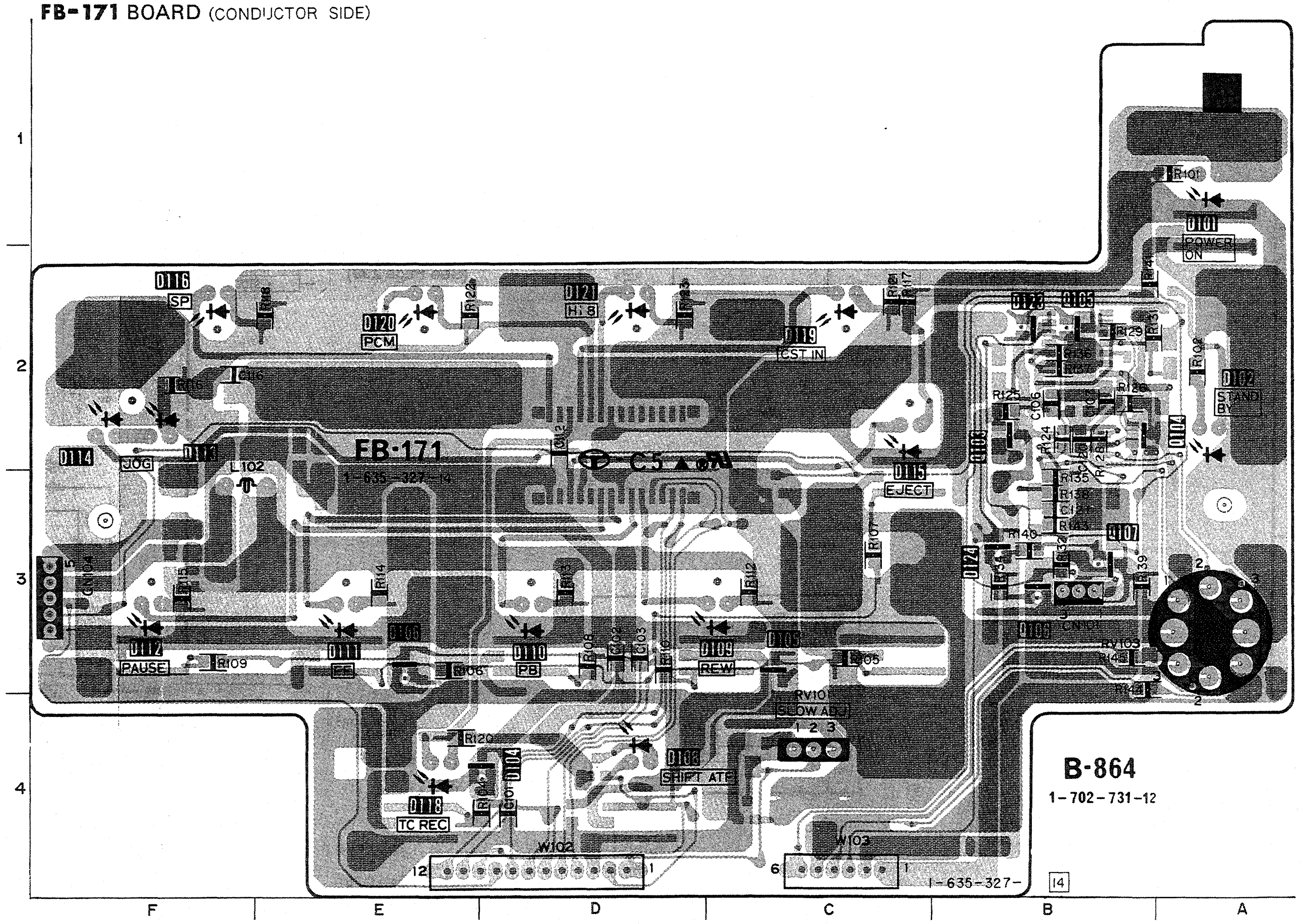
**FB-171** BOARD (COI


1
2
3
4
D116
SP
D114
JOG
D112
PAUSE
F
J401
HEAD PHONES

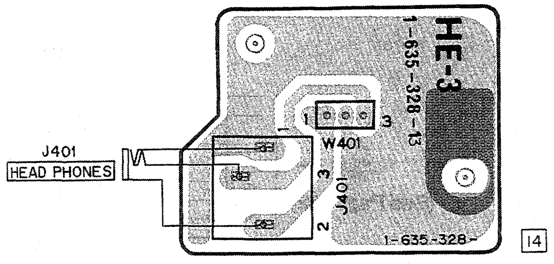
OMPONENT SIDE)


D119
D121
H18
D120
PCM
D116
SP
D101
D115
D113
D114
D122
S105
EJECT
FB-171
1-635-327-13
L102
L101
DIP
J/S
CN104
D109
D111
D110
D112
S105 STOP
S108
REW
S106
PLAY
S104
FF
S107
PAUSE
RV101
SLOW ADJ
RV102
D118
TIME CODE
S102
TIME CODE
D107
W103
W102
1-635-327-
14
64
31-12
B
C
D
E
F

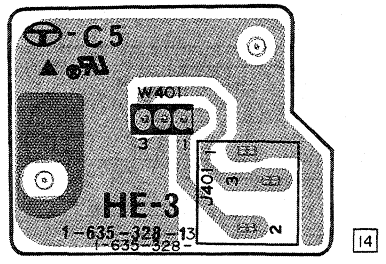
**FB-171** BOARD (CONDUCTOR SIDE)


1
2
3
4
D116
SP
D120
PCM
D121
H18
D119
CST IN
D101
POWER ON
D102
STAND BY
D104
D103
D123
D105
D114
JOG
D113
L102
FB-171
1-635-327-13
C5
D115
EJECT
D124
D107
CN104
CN101
RV103
D112
PAUSE
D111
FF
D110
PB
D109
REW
D106
RV101
SLOW ADJ
D118
TC REC
D108
SHIFT ATE
W102
W103
B-864
1-702-731-12
1-635-327-
14
F
E
D
C
B
A

**HE-3** BOARD (COMPONENT SIDE)

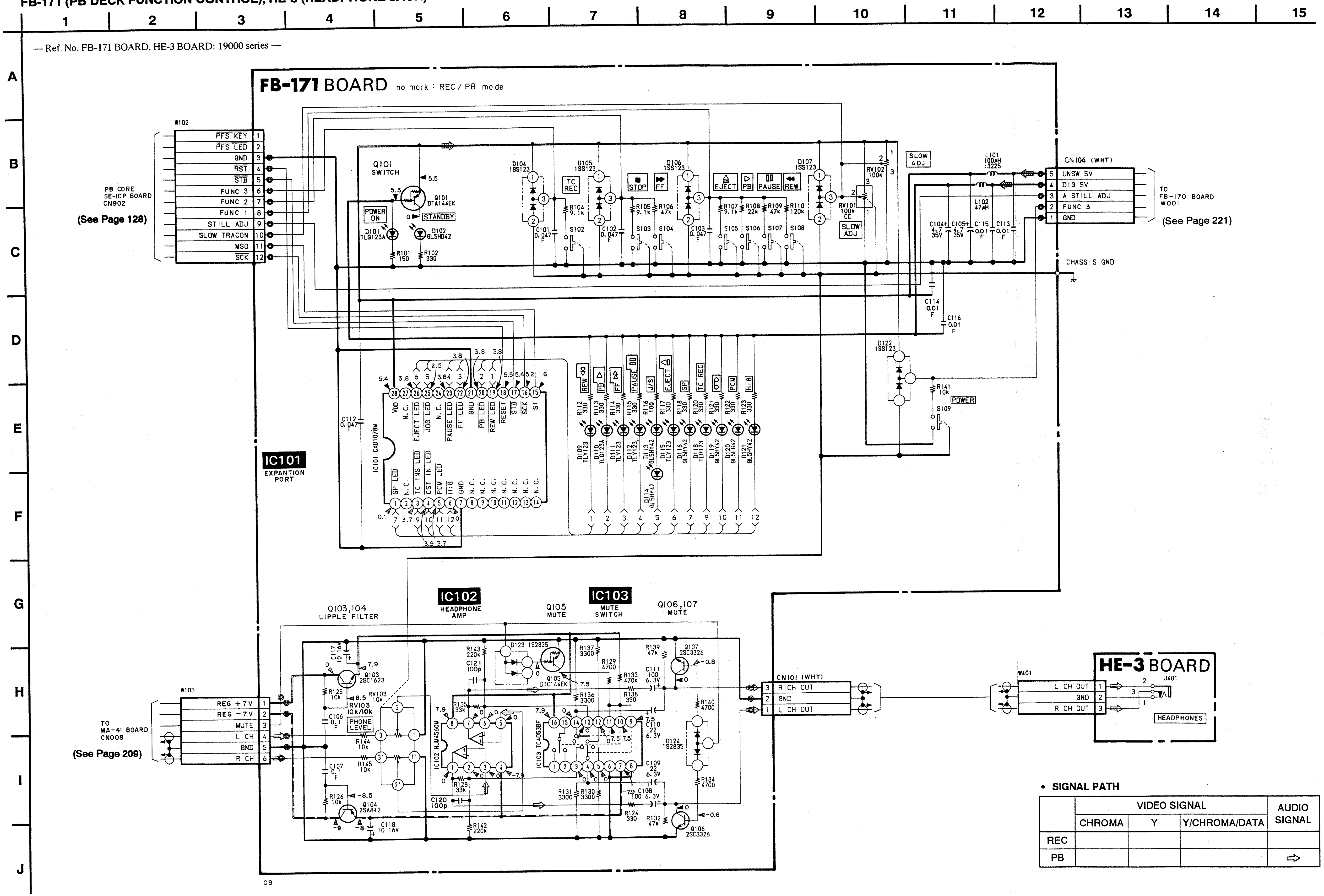

J401
HEAD PHONES
W401
HE-3
1-635-328-13
J401
1-635-328-
14

**HE-3** BOARD (CONDUCTOR SIDE)


C5
W401
HE-3
1-635-328-13
1-635-328-
J401
14

## FB-171 (PB DECK FUNCTION CONTROL), HE-3 (HEADPHONE JACK) SCHEMATIC DIAGRAMS

— Ref. No. FB-171 BOARD, HE-3 BOARD: 19000 series —

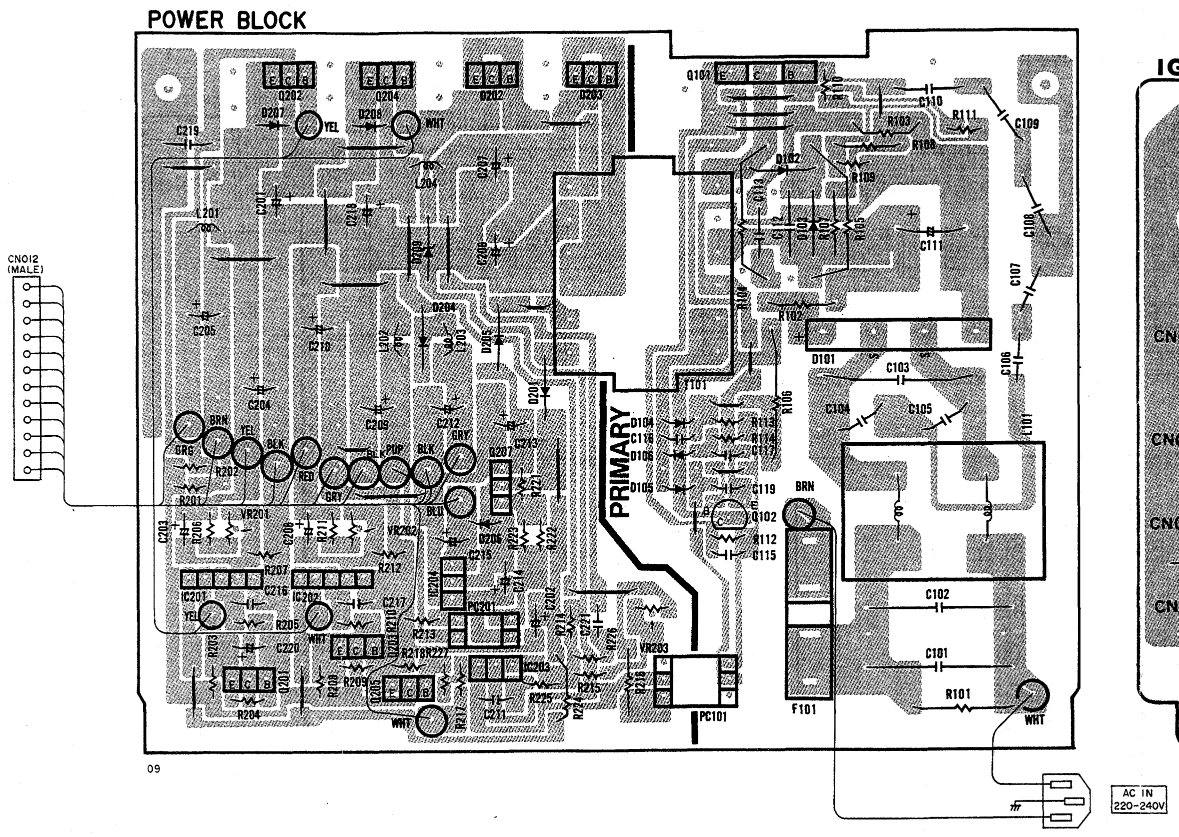

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15
A B C D E F G H I J
FB-171 BOARD no mark : REC / PB mode
W102
PFS KEY
PFS LED
GND
RST
STB
FUNC 3
FUNC 2
FUNC 1
STILL ADJ
SLOW TRACON
MSO
SCK
PB CORE SE-10P BOARD CN902
(See Page 128)
Q101 SWITCH
Q101 DTA144EK
POWER ON
STANDBY
D101 TLG123A
D102 GL5HD42
R101 150
R102 330
D104 1SS123
D105 1SS123
D106 1SS123
D107 1SS123
TC REC
STOP
FF
EJECT
PB
PAUSE
REW
SLOW ADJ
RV102 100k
RV101 100k CC
L101 100µH :3225
L102 47µH
CN104 (WHT)
UNSW 5V
DIG 5V
A STILL ADJ
FUNC 3
GND
TO FB-170 BOARD W001
(See Page 221)
CHASSIS GND
C114 0.01 F
C116 0.01 F
D122 1SS123
R141 10k
POWER
S109
IC101 EXPANTION PORT
IC101 CXD1078M
VDD
N.C.
EJECT LED
JOG LED
PAUSE LED
FF LED
GND
PB LED
REW LED
RESET
STB
SCK
SI
SP LED
TC INS LED
CST IN LED
PCM LED
Hi8
D109 TLY123
D110 TLG123A
D111 TLY123
D112 TLY123
D113 GL5HY42
D114 GL5HY42
D115 TLY123
D116 GL5HY42
D118 TLR123
D119 GL5HY42
D120 GL5EG42
D121 GL5HY42
IC102 HEADPHONE AMP
IC102 NJM4560M
IC103 MUTE SWITCH
IC103 TC4053BF
Q103,104 LIPPLE FILTER
Q103 2SC1623
Q104 2SA812
Q105 MUTE
Q105 DTC144EK
Q106,107 MUTE
Q106 2SC3326
Q107 2SC3326
D123 1S2835
D124 1S2835
RV103 10k/10k
PHONE LEVEL
W103
REG +7V
REG -7V
MUTE
L CH
GND
R CH
TO MA-41 BOARD CN008
(See Page 209)
CN101 (WHT)
R CH OUT
GND
L CH OUT
HE-3 BOARD
W401
L CH OUT
GND
R CH OUT
J401
HEADPHONES
09

• **SIGNAL PATH**

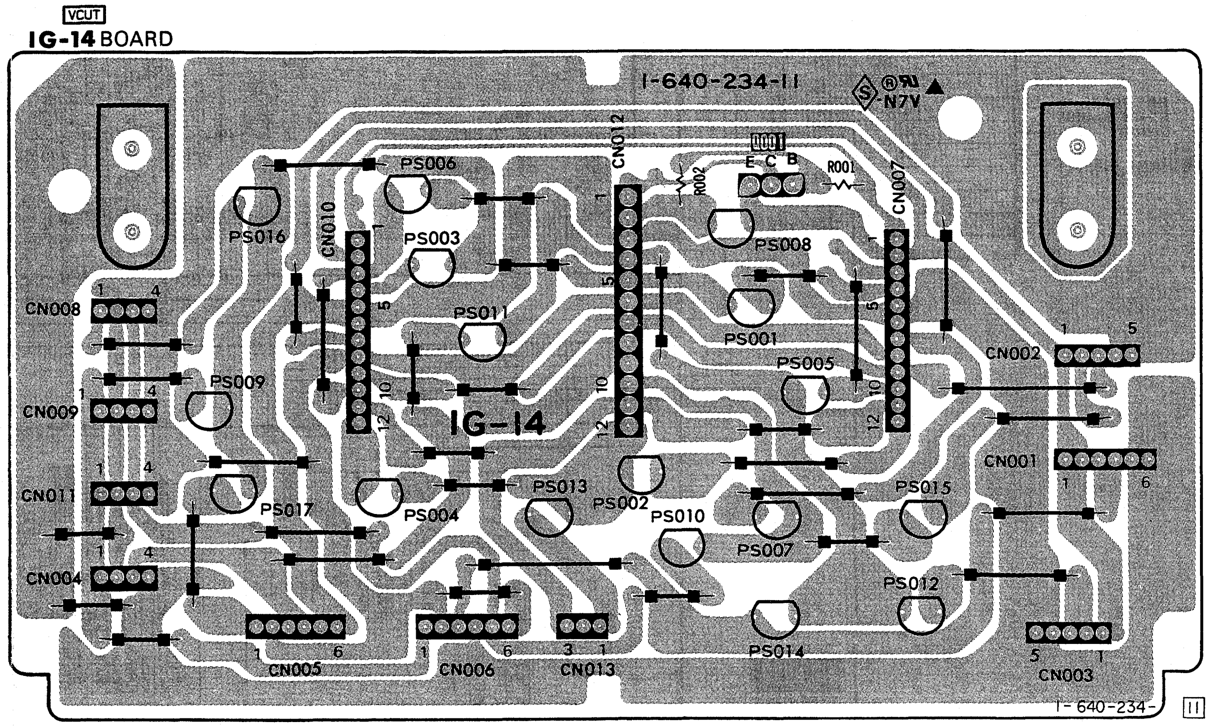
| | VIDEO SIGNAL | | | AUDIO SIGNAL |
|---|---|---|---|---|
| | CHROMA | Y | Y/CHROMA/DATA | |
| REC | | | | |
| PB | | | | ⇨ |

## POWER BLOCK (POWER SUPPLY), IG-14 (POWER DISTRIBUTION) PRINTED WIRING BOARD

— Ref. No. POWER BLOCK: 20000 series, IG-14 BOARD: 19000 series —



POWER BLOCK
CN012 (MALE)
PRIMARY
Q101
Q201
Q202
Q203
Q204
D101
D102
D105
D106
D201
D203
D204
D205
D206
D207
D208
IC201
IC202
IC203
IC204
PC101
T101
F101
L101
L201
L202
L203
L204
VR201
VR202
VR203
C101
C102
C103
C104
C105
C106
C107
C108
C109
C110
C111
C119
C201
C202
C203
C204
C205
C206
C207
C208
C209
C210
C211
C212
C213
C214
C215
C216
C217
C219
R101
R102
R103
R104
R105
R106
R107
R108
R109
R111
R112
R113
R114
R201
R202
R203
R204
R205
R206
R207
R209
R212
R213
R215
R217
R218
R221
R222
R223
R224
R225
R226
R227
BRN
YEL
WHT
ORG
BLK
RED
GRY
PNP
BLU
09
AC IN 220-240V



VCUT
IG-14 BOARD
1-640-234-11
N7V
IG-14
Q001
E C B
R001
R002
CN001
CN002
CN003
CN004
CN005
CN006
CN007
CN008
CN009
CN010
CN011
CN012
CN013
PS001
PS002
PS003
PS004
PS005
PS006
PS007
PS008
PS009
PS010
PS011
PS012
PS013
PS014
PS015
PS016
PS017
1-640-234-
11

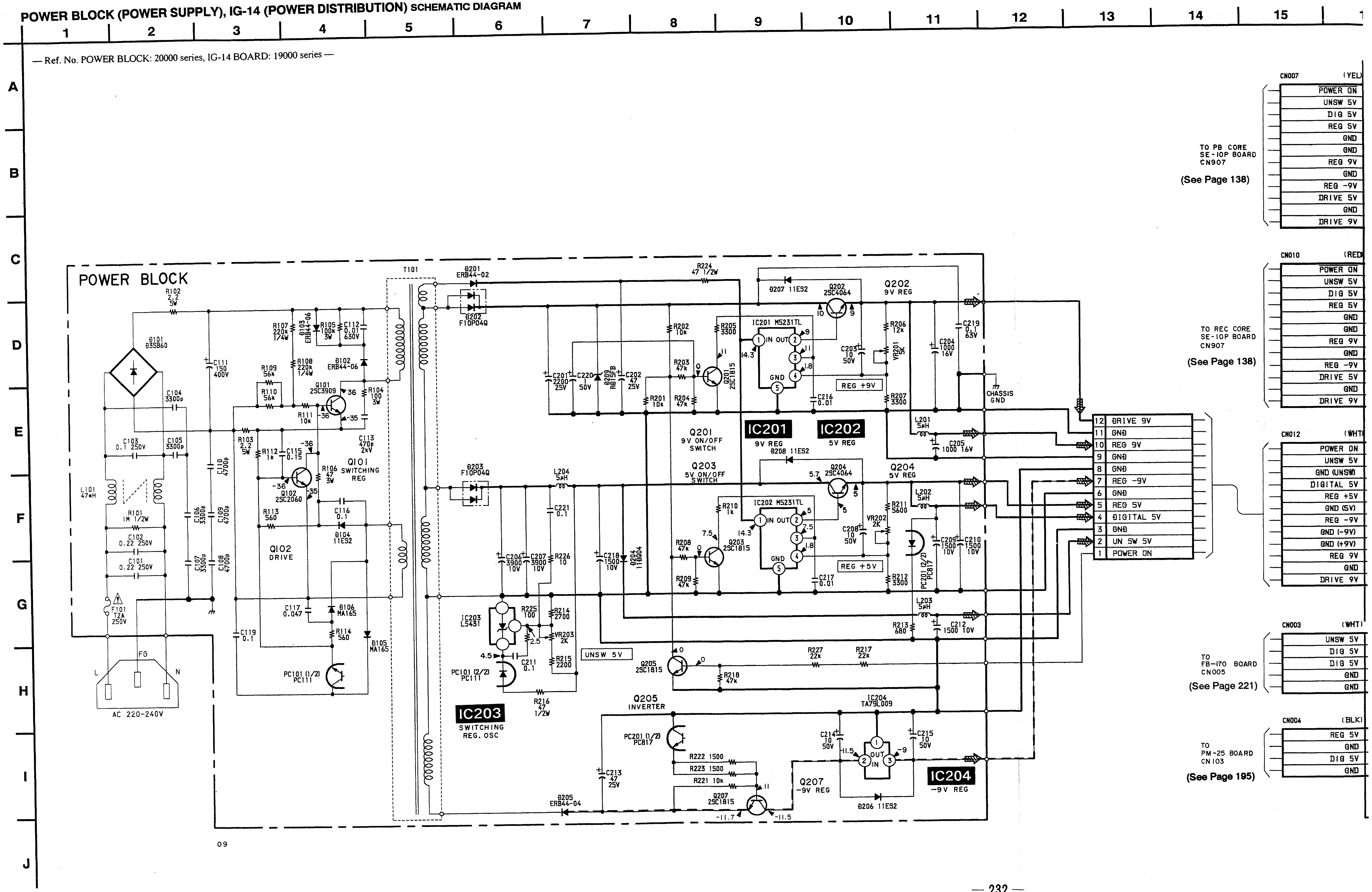
* A-7062-849-A IG-14 BOARD, COMPLETE
***********************
(Ref.No 19,000 Series)

< TRANSISTOR >

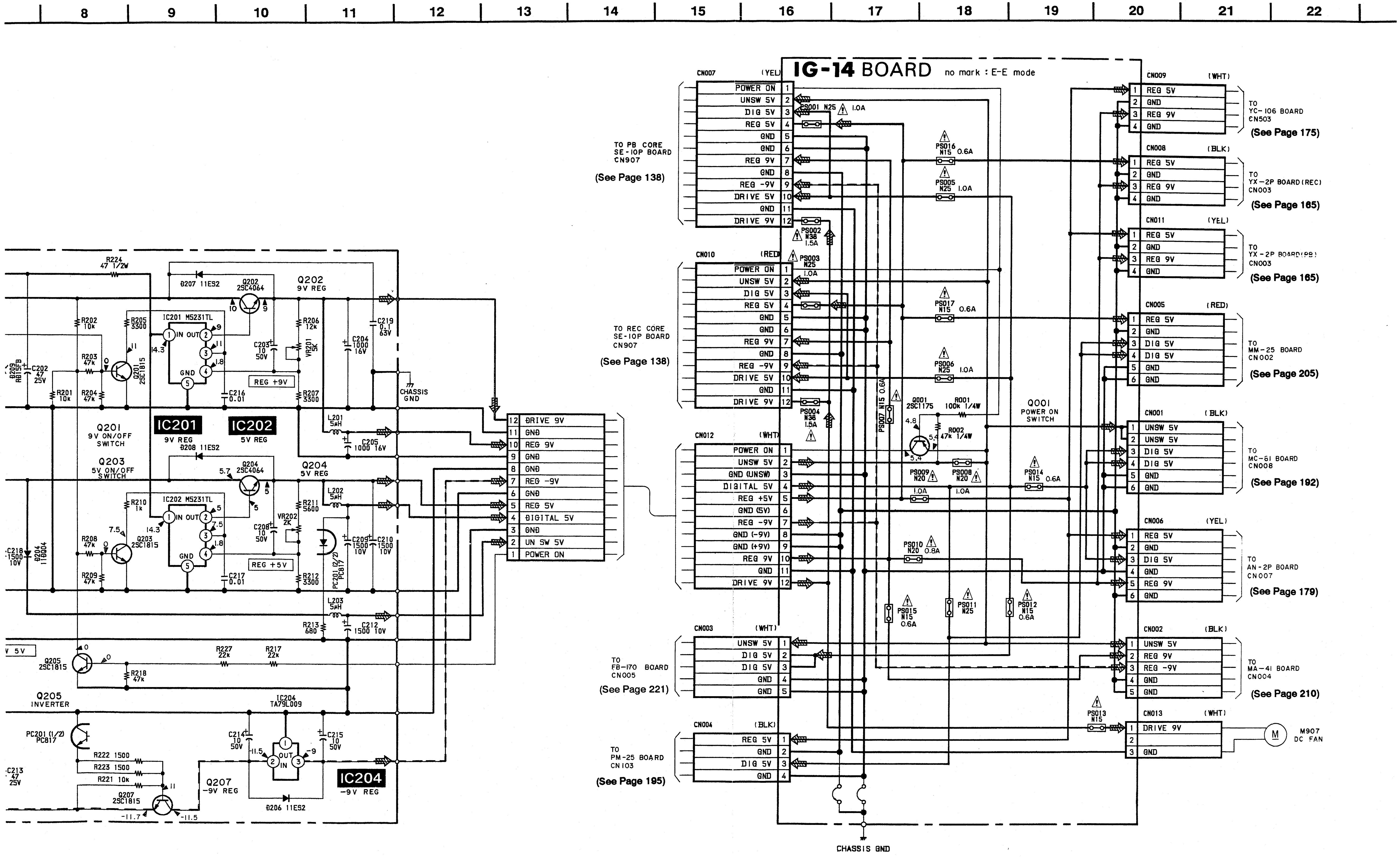
Q001 8-729-119-76 TRANSISTOR 2SA1175

## POWER BLOCK (POWER SUPPLY), IG-14 (POWER DISTRIBUTION) SCHEMATIC DIAGRAM

— Ref. No. POWER BLOCK: 20000 series, IG-14 BOARD: 19000 series —

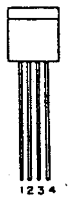


1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
A
B
C
D
E
F
G
H
I
J
POWER BLOCK
R102 2.2 5W
D101 D3SB60
C111 150 400V
C104 3300p
C103 0.1 250V
C105 3300p
L101 47mH
R101 1M 1/2W
C102 0.22 250V
C101 0.22 250V
C106 3300p
C107 3300p
C110 4700p
C108 4700p
C109 4700p
F101 T2A 250V
FG
L
N
AC 220-240V
R107 220k 1/4W
D103 ERB44-06
R105 100k 3W
C112 0.01 630V
R108 220k 1/4W
D102 ERB44-06
R109 56k
R110 56k
Q101 2SC3909
R104 100 3W
R111 10k
R103 2.2 5W
R112 1k
C115 0.15
C113 470p 2kV
Q101 SWITCHING REG
R106 47 3W
Q102 2SC2060
Q102 DRIVE
R113 560
C116 0.1
D104 11ES2
C117 0.047
D106 MA165
R114 560
D105 MA165
C119 0.1
PC101 (1/2) PC111
T101
D201 ERB44-02
D202 F10P04Q
D203 F10P04Q
L204 5μH
C221 0.1
C206 3900 10V
C207 3900 10V
R226 10
IC203 L5431
R225 100
R214 2700
VR203 2K
R215 2200
C211 0.1
PC101 (2/2) PC111
R216 47 1/2W
IC203
SWITCHING REG. OSC
UNSW 5V
C201 2200 25V
C220 1 50V
D209 RB115FB
C202 47 25V
R224 47 1/2W
R202 10k
R205 3300
R203 47k
Q201 2SC1815
R201 10k
R204 47k
Q201 9V ON/OFF SWITCH
D207 11ES2
Q202 2SC4064
Q202 9V REG
IC201 M5231TL
IN OUT
GND
C203 10 50V
REG +9V
C216 0.01
R206 12k
VR201 5K
C204 1000 16V
C219 0.1 63V
R207 3300
CHASSIS GND
IC201
9V REG
IC202
5V REG
L201 5μH
C205 1000 16V
Q203 5V ON/OFF SWITCH
D208 11ES2
Q204 2SC4064
Q204 5V REG
IC202 M5231TL
R210 1k
R208 47k
Q203 2SC1815
R209 47k
C208 10 50V
VR202 2K
R211 5600
REG +5V
C217 0.01
R212 3300
L202 5μH
PC201 (2/2) PC817
C209 1500 10V
C210 1500 10V
C218 1500 10V
D204 11DQ04
L203 5μH
R213 680
C212 1500 10V
Q205 2SC1815
R227 22k
R217 22k
R218 47k
Q205 INVERTER
PC201 (1/2) PC817
R222 1500
R223 1500
R221 10k
Q207 2SC1815
C213 47 25V
D205 ERB44-04
Q207 -9V REG
IC204 TA79L009
C214 10 50V
C215 10 50V
OUT IN
IC204
-9V REG
D206 11ES2
09
12 DRIVE 9V
11 GND
10 REG 9V
9 GND
8 GND
7 REG -9V
6 GND
5 REG 5V
4 DIGITAL 5V
3 GND
2 UN SW 5V
1 POWER ON
CN007 (YEL
POWER ON
UNSW 5V
DIG 5V
REG 5V
GND
GND
REG 9V
GND
REG -9V
DRIVE 5V
GND
DRIVE 9V
TO PB CORE SE-10P BOARD CN907
(See Page 138)
CN010 (RED
POWER ON
UNSW 5V
DIG 5V
REG 5V
GND
GND
REG 9V
GND
REG -9V
DRIVE 5V
GND
DRIVE 9V
TO REC CORE SE-10P BOARD CN907
(See Page 138)
CN012 (WHT
POWER ON
UNSW 5V
GND (UNSW)
DIGITAL 5V
REG +5V
GND (5V)
REG -9V
GND (-9V)
GND (+9V)
REG 9V
GND
DRIVE 9V
CN003 (WHT)
UNSW 5V
DIG 5V
DIG 5V
GND
GND
TO FB-170 BOARD CN005
(See Page 221)
CN004 (BLK)
REG 5V
GND
DIG 5V
GND
TO PM-25 BOARD CN103
(See Page 195)

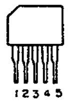

8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
IG-14 BOARD
no mark : E-E mode
R224 47 1/2W
Ð207 11ES2
Q202 2SC4064
Q202 9V REG
IC201 M5231TL
IN OUT
GND
R202 10k
R205 3300
R203 47k
R204 47k
R201 10k
Q201 2SC1815
Ð209 RÐ15FB
C202 47 25V
C203 10 50V
VR201 5K
R206 12k
C204 1000 16V
C219 0.1 63V
C216 0.01
REG +9V
R207 3300
CHASSIS GND
L201 5µH
C205 1000 16V
Q201 9V ON/OFF SWITCH
IC201 9V REG
IC202 5V REG
Ð208 11ES2
Q203 5V ON/OFF SWITCH
Q204 2SC4064
Q204 5V REG
IC202 M5231TL
R210 1k
R208 47k
R209 47k
Q203 2SC1815
C218 1500 10V
Ð204 11ÐQ04
C208 10 50V
VR202 2K
R211 5600
L202 5µH
PC201 (2/2) PC817
C209 1500 10V
C210 1500 10V
REG +5V
C217 0.01
R212 3300
L203 5µH
R213 680
C212 1500 10V
R227 22k
R217 22k
Q205 2SC1815
R218 47k
Q205 INVERTER
PC201 (1/2) PC817
R222 1500
R223 1500
R221 10k
Q207 2SC1815
Q207 -9V REG
C213 47 25V
IC204 TA79L009
C214 10 50V
C215 10 50V
OUT IN
Ð206 11ES2
IC204 -9V REG
12 ÐRIVE 9V
11 GNÐ
10 REG 9V
9 GNÐ
8 GNÐ
7 REG -9V
6 GNÐ
5 REG 5V
4 ÐIGITAL 5V
3 GNÐ
2 UN SW 5V
1 POWER ON
CN007 (YEL)
TO PB CORE SE-10P BOARD CN907
(See Page 138)
POWER ON
UNSW 5V
DIG 5V
REG 5V
GND
REG 9V
REG -9V
DRIVE 5V
DRIVE 9V
PS001 N25 1.0A
PS002 N38 1.5A
PS003 N25 1.0A
PS004 N38 1.5A
CN010 (RED)
TO REC CORE SE-10P BOARD CN907
(See Page 138)
CN012 (WHT)
GND (UNSW)
DIGITAL 5V
REG +5V
GND (5V)
REG -9V
GND (-9V)
GND (+9V)
PS016 N15 0.6A
PS005 N25 1.0A
PS017 N15 0.6A
PS006 N25 1.0A
PS007 N15 0.6A
Q001 2SC1175
R001 100k 1/4W
R002 47k 1/4W
Q001 POWER ON SWITCH
PS009 N20 1.0A
PS008 N20 1.0A
PS014 N15 0.6A
PS010 N20 0.8A
PS015 N15 0.6A
PS011 N25
PS012 N15 0.6A
PS013 N15
CN003 (WHT)
TO FB-170 BOARD CN005
(See Page 221)
CN004 (BLK)
TO PM-25 BOARD CN103
(See Page 195)
CHASSIS GND
CN009 (WHT)
TO YC-106 BOARD CN503
(See Page 175)
CN008 (BLK)
TO YX-2P BOARD (REC) CN003
(See Page 165)
CN011 (YEL)
TO YX-2P BOARD (PB) CN003
(See Page 165)
CN005 (RED)
TO MM-25 BOARD CN002
(See Page 205)
CN001 (BLK)
TO MC-61 BOARD CN008
(See Page 192)
CN006 (YEL)
TO AN-2P BOARD CN007
(See Page 179)
CN002 (BLK)
TO MA-41 BOARD CN004
(See Page 210)
CN013 (WHT)
DRIVE 9V
M907 DC FAN

## 4-3. SEMICONDUCTORS

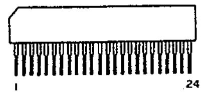
**AN607P**
**AN608P**



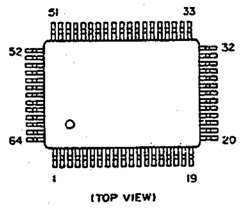
**BA401**
**TA7060AP**



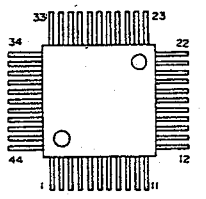
**BA7036LS**



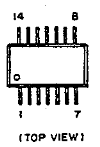
**CF77305FT**
**CXP5024H**
**CXP5048H-204Q**
**CXP5048H-205Q**
**CXP5048H-210Q**
**M50541FP**
**µPD75106G-573-1B**
**µPD75106G-589-1B**
**µPD75108G**


51
33
52
32
64
20
1
19
(TOP VIEW)

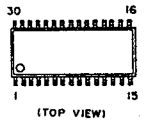
**CF77309FR**
**µPD71051GB**
**µPD7507HG**


33
23
34
22
44
12
1
11

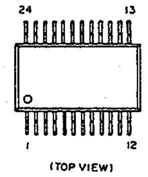
**CX20095A**
**CX22013**
**M52684AFB**
**MC14069UBF**
**MC1496MR**
**MC74HC04F**
**SN74HC00NS**
**SN74HC04NS**
**SN74HC08NS**
**SN74HC125NS**
**SN74HC32NS**
**SN74HC393NS**
**SN74HC74NS**
**TC4001BF**
**µPD74HC00G**
**µPD74HC125G**
**RC3403AM**


14
8
1
7
(TOP VIEW)

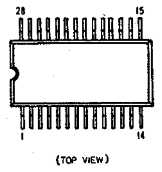
**CXA1047M**
**LB1616M**


30
16
1
15
(TOP VIEW)

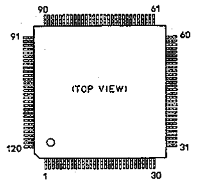
**CXA1106M**
**CXA1109M**
**CXD1175M**
**M50760**
**M52682FP**
**M52686AFP**
**TA8607F**


24
13
1
12
(TOP VIEW)

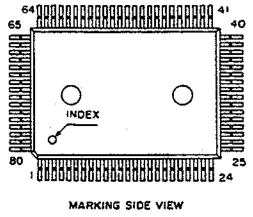
**CXD1078M**
**CXK5864BM**
**M51271FP**


28
15
1
14
(TOP VIEW)

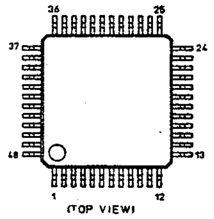
**CXD1226Q**


90
61
91
60
(TOP VIEW)
120
31
1
30

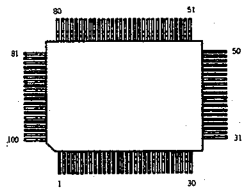
**CXD1227Q**
**CXP80116-638Q**


64
41
65
40
INDEX
80
25
1
24
MARKING SIDE VIEW

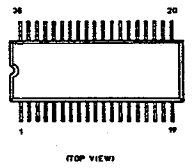
**CXD1229Q**


36
25
37
24
48
13
1
12
(TOP VIEW)

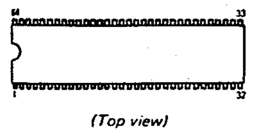
**CXD2108Q**


80
51
81
50
100
31
1
30

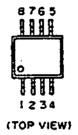
**CXK1200M**
**MB90061**


38
20
1
19
(TOP VIEW)

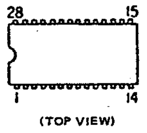
**HD63B05Z0-A28F**


64
33
1
32
(Top view)

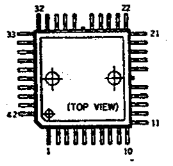
**LM1881M**
**M5201FP**
**NJM2230M**
**NJM2233M**
**NJM2234M**
**NJM2235M**
**NJM2238M**
**NJM2246M**
**NJM4558M**
**NJM4560M**
**NJM4562M**
**RC3414M**
**SN16913P**
**UPC311G2**
**UPC393G2**


8 7 6 5
1 2 3 4
(TOP VIEW)

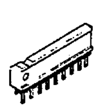
**M51271FP**


28
15
1
14
(TOP VIEW)

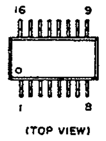
**M51285BFP**


32
22
33
21
(TOP VIEW)
42
11
1
10

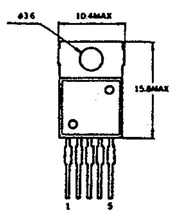
**M5M4C500L**



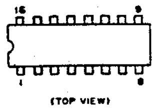
**MC14053BF**
**MC74HC4053F**
**NJM2229M**
**SN74HC175NS**
**TA7745F**
**TC4052BFHB**
**TC4053BFHB**
**TC74HC123F**


16
9
1
8
(TOP VIEW)

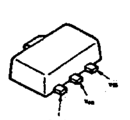
**MC14538BF**


ø3.6
10.4MAX
15.8MAX
1
5

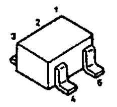
**MC74HC157F**
**SN74HC08NS**
**SN74HC138NS**
**SN74HC139NS**
**TC74HC670AP**


16
9
1
8
(TOP VIEW)

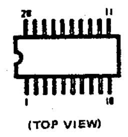
**S-8054ALB**



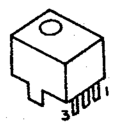
**SC78U04FER**



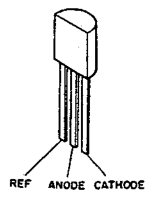
**SN74HC244NS**
**SN74HC245NS**
**SN74HC374NS**


20
11
1
10
(TOP VIEW)

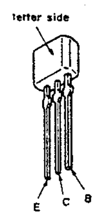
**SBX1595-01**



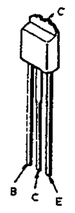
**TL431CLP**


REF
ANODE
CATHODE

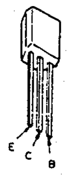
**2SA1175-HFE**


letter side
E
C
B

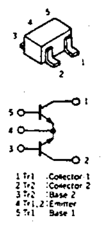
**2SA1385-ZL**
**2SC3518**



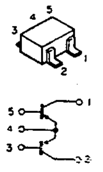
**2SC3327-B**
**DTA144ES**



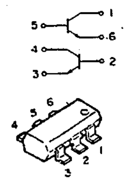
**FMG2**
**FMW1**


1
2
3
4
5
1 Tr1 :Collector 1
2 Tr2 :Collector 2
3 Tr2 :Base 2
4 Tr1,2 :Emitter
5 Tr1 :Base 1

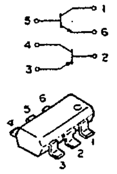
**FMS1**



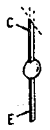
**IMX1**



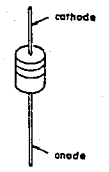
**IMZ1**



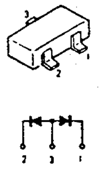
**NJL7141E**



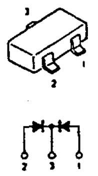
**1SS119**
**RD5.1ESB2**
**RD5.1ESB3**


cathode
anode

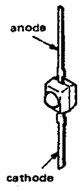
**IS2836**



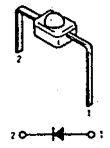
**IS2837**
**DAN202K**



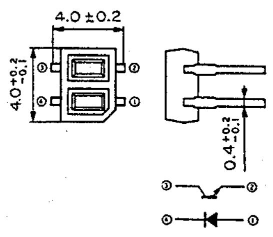
**GL-1EG11**


anode
cathode

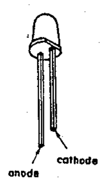
**GL-1PR102**



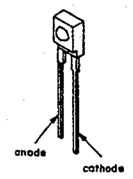
**GP2S09-B**


4.0±0.2
4.0+0.2 -0.1
0.4+0.2 -0.1
③
②
④
①

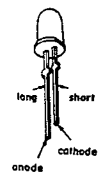
**AA3422S**


anode
cathode

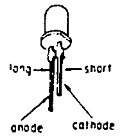
**GL-450S**


anode
cathode

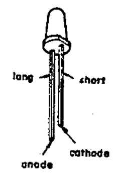
**GL-5EG521-B**


long
short
anode
cathode

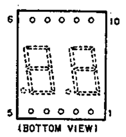
**GL-5HD21**
**GL-5HY41**


long
short
anode
cathode

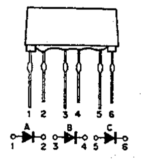
**GL-5HS42**
**GL-5HY42**


long
short
anode
cathode

**LB-202DB**


6
10
5
1
(BOTTOM VIEW)

**LT-9230D**



**SLP281C-50**
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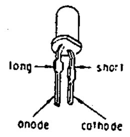
**TLY123**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short
anode
cathode

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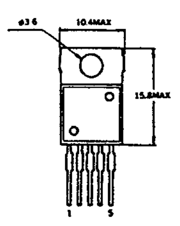
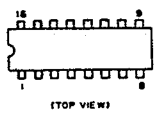
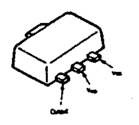
**MC14538BF**



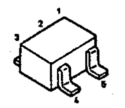
**MC74HC157F**
**SN74HC08NS**
**SN74HC138NS**
**SN74HC139NS**
**TC74HC670AP**


16
9
1
8
(TOP VIEW)

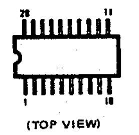
**S-8054ALB**



**SC78U04FER**



**SN74HC244NS**
**SN74HC245NS**
**SN74HC374NS**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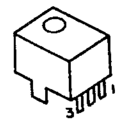
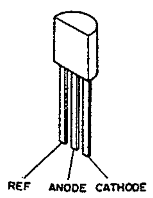
11
1
10
(TOP VIEW)

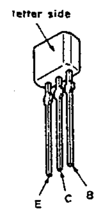
**SBX1595-01**



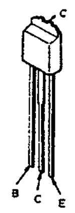
**TL431CLP**


REF
ANODE
CATHODE

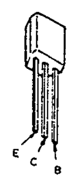
**2SA1175-HFE**


letter side
E
C
B

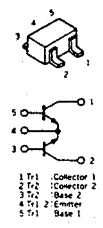
**2SA1385-ZL**
**2SC3518**



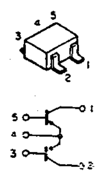
**2SC3327-B**
**DTA144ES**



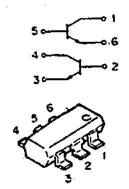
**FMG2**
**FMW1**



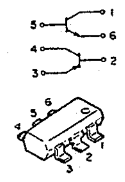
**FMS1**



**IMX1**



**IMZ1**



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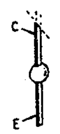
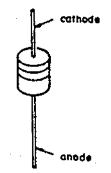
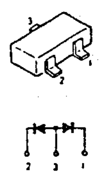


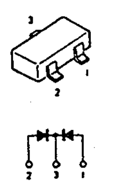
**1SS119**
**RD5.1ESB2**
**RD5.1ESB3**


cathode
anode

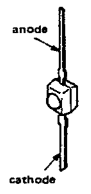
**IS2836**



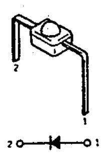
**IS2837**
**DAN202K**



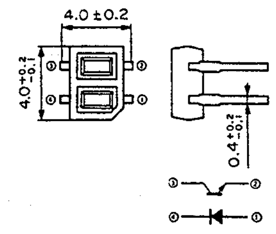
**GL-1EG11**


anode
cathode

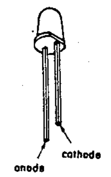
**GL-1PR102**



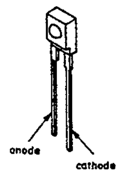
**GP2S09-B**


4.0±0.2
4.0±0.2
0.4±0.1
③
②
④
①

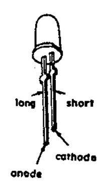
**AA3422S**


cathode
anode

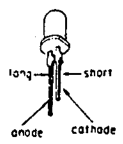
**GL-450S**


anode
cathode

**GL-5EG521-B**


long
short
cathode
anode

**GL-5HD21**
**GL-5HY41**


long
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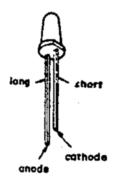
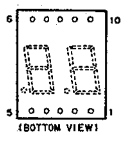
anode
cathode

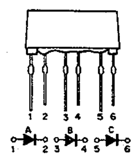
**GL-5HS42**
**GL-5HY42**


long
short
cathode
anode

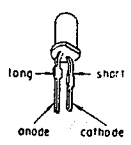
**LB-202DB**


6
10
5
1
(BOTTOM VIEW)

**LT-9230D**



**SLP281C-50**
**TLR123**
**TLY123**


long
short
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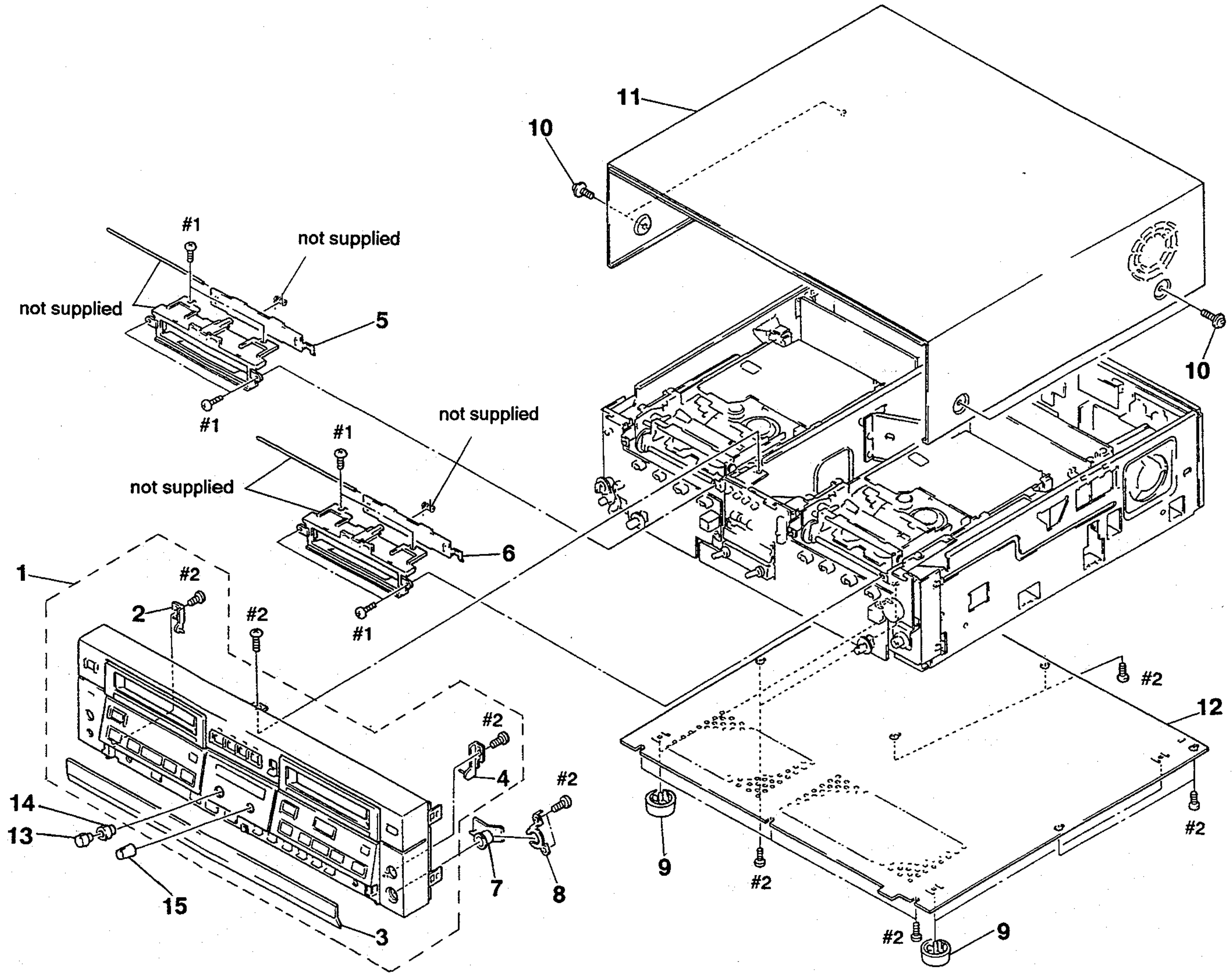
# SECTION 5

# EXPLODED VIEWS

**NOTE:**
- -XX, -X mean standardized parts, so they may have some difference from the original one.
- Items marked " * " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- The mechanical parts with no reference number in the exploded views are not supplied.
- Hardware (# mark) list is given in the last of this parts list.

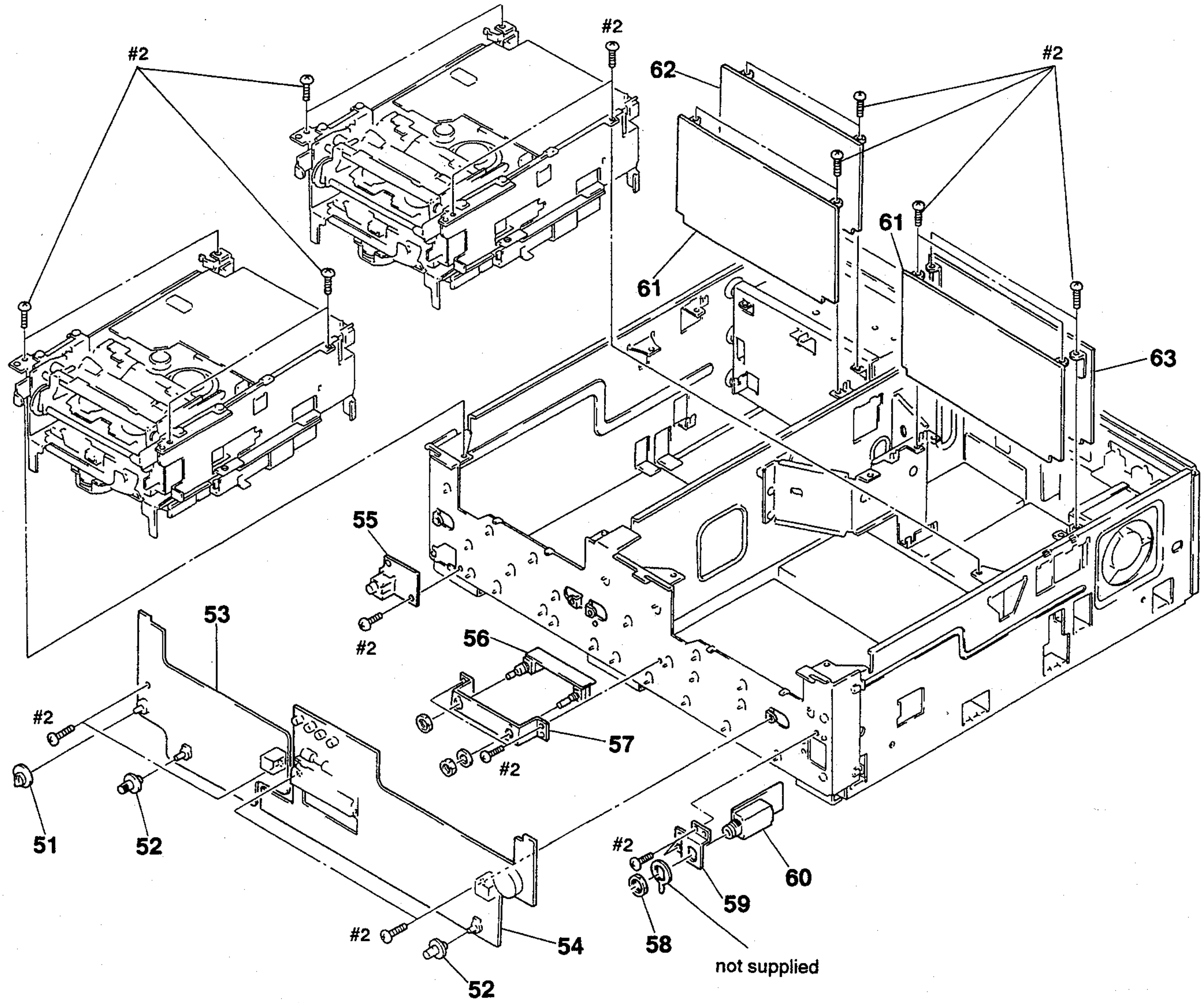
The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

## 5-1. FRONT PANEL AND CABINET ASSEMBLIES


11
10
#1
not supplied
not supplied
5
10
#1
#1
not supplied
not supplied
6
1
#2
2
#2
#1
#2
12
#2
4
#2
14
13
15
3
7
8
9
#2
#2
#2
9

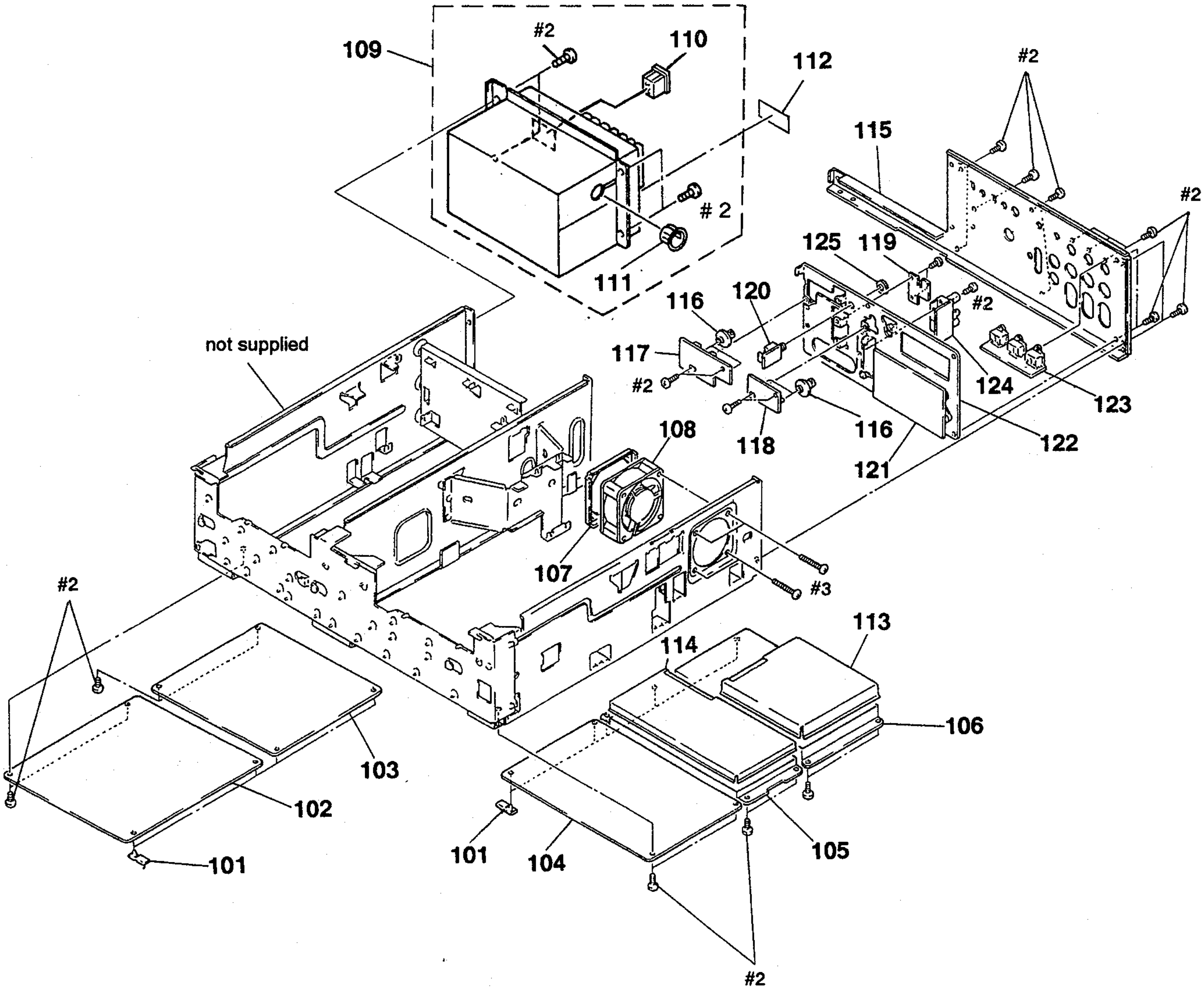
| Ref. No. | Part No. | Description | Remark |
|---|---|---|---|
| 1 | X-3940-885-1 | PANEL ASSY, FRONT | |
| 2 | X-3747-005-1 | SUPPORT (L) ASSY, DOOR | |
| 3 | X-3940-884-1 | DOOR ASSY | |
| 4 | X-3747-006-1 | SUPPORT (R) ASSY, DOOR | |
| 5 | 3-721-101-11 | DOOR | |
| 6 | 3-721-101-21 | DOOR | |
| 7 | * 1-635-324-11 | CC-34 BOARD | |
| 8 | * 3-724-111-01 | HOLDER, CONNECTOR | |
| 9 | X-3701-069-0 | FOOT ASSY, M.F | |
| 10 | 4-886-821-11 | SCREW, M3 CASE | |
| 11 | 3-747-057-01 | CASE, UPPER | |
| 12 | 3-747-058-01 | PLATE, BOTTOM | |
| 13 | 3-747-004-03 | KNOB (R), LEVEL | |
| 14 | 3-747-003-02 | KNOB (L), LEVEL | |
| 15 | 3-747-013-02 | KNOB, AFM LEVEL | |

## 5-2. PC BOARDS ASSEMBLIES


#2
#2
62
#2
61
61
63
55
53
56
#2
#2
57
#2
51
52
#2
60
59
#2
54
58
not supplied
52

| Ref. No. | Part No. | Description | Remark |
|---|---|---|---|
| 51 | 3-724-112-01 | KNOB, PHONE | |
| 52 | 3-724-113-01 | KNOB, ADJUST | |
| 53 | * A-7062-220-A | FB-171 BOARD, COMPLETE | |
| 54 | * A-7062-219-A | FB-170 BOARD, COMPLETE | |
| 55 | * 1-635-328-11 | HE-3 BOARD | |
| 56 | * 1-635-325-11 | RL-23 BOARD | |
| 57 | * 3-747-016-02 | HOLDER, VR | |
| 58 | 3-684-465-01 | NUT | |
| 59 | * 3-747-022-01 | HOLDER, MIC | |
| 60 | * A-7062-225-A | MJ-26 BOARD, COMPLETE | |
| 61 | * A-7062-845-A | YX-2 (P) BOARD, COMPLETE | |
| 62 | * A-7062-849-A | IG-14 BOARD, COMPLETE | |
| 63 | * A-7062-844-A | YC-106 BOARD, COMPLETE | |

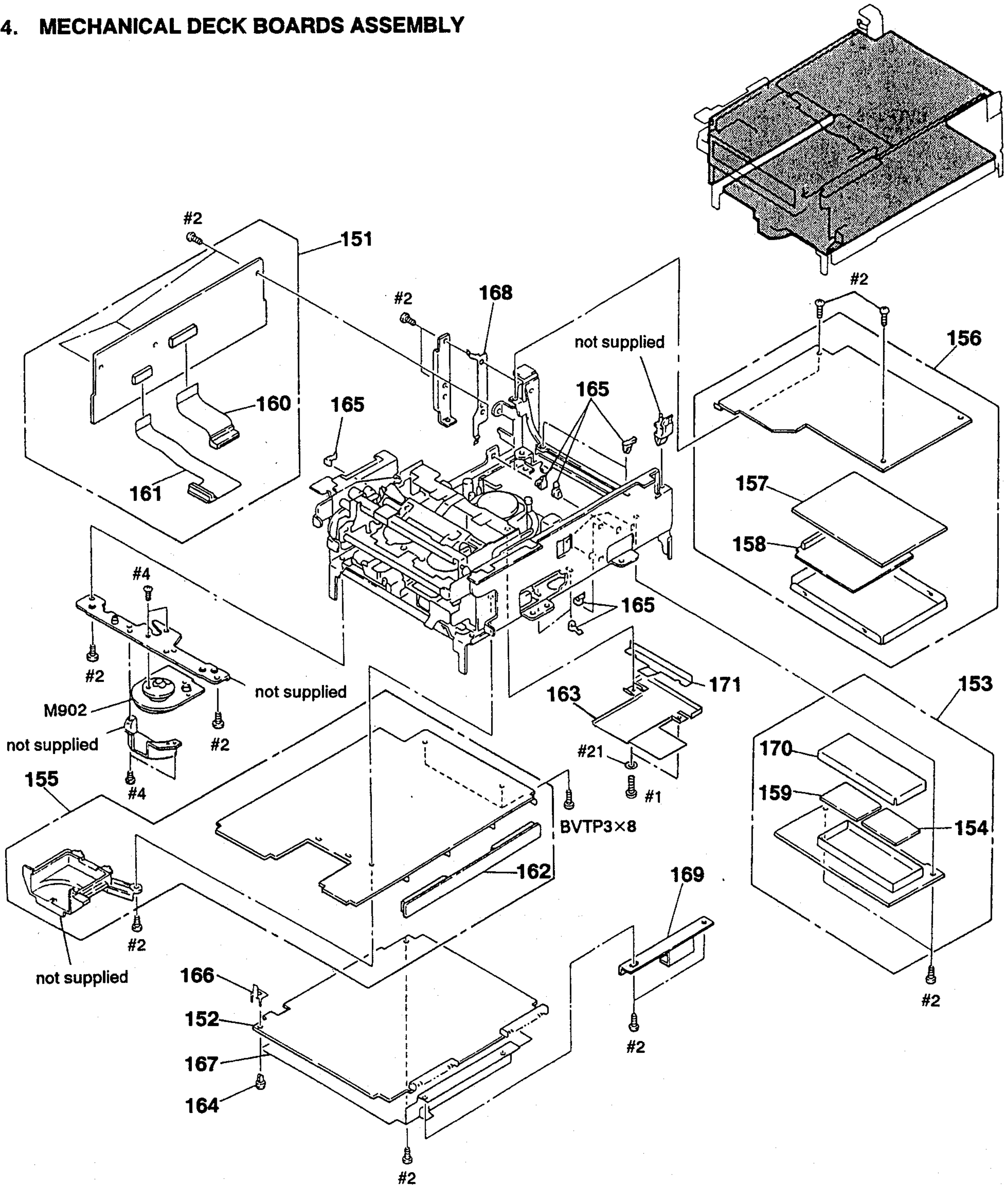
## 5-3. PC BOARDS AND POWER SUPPLY ASSEMBLIES


109
#2
110
112
#2
115
#2
# 2
125
119
111
116
120
#2
117
#2
124
123
not supplied
108
118
116
122
121
107
#2
#3
113
114
106
103
102
101
101
104
105
#2

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

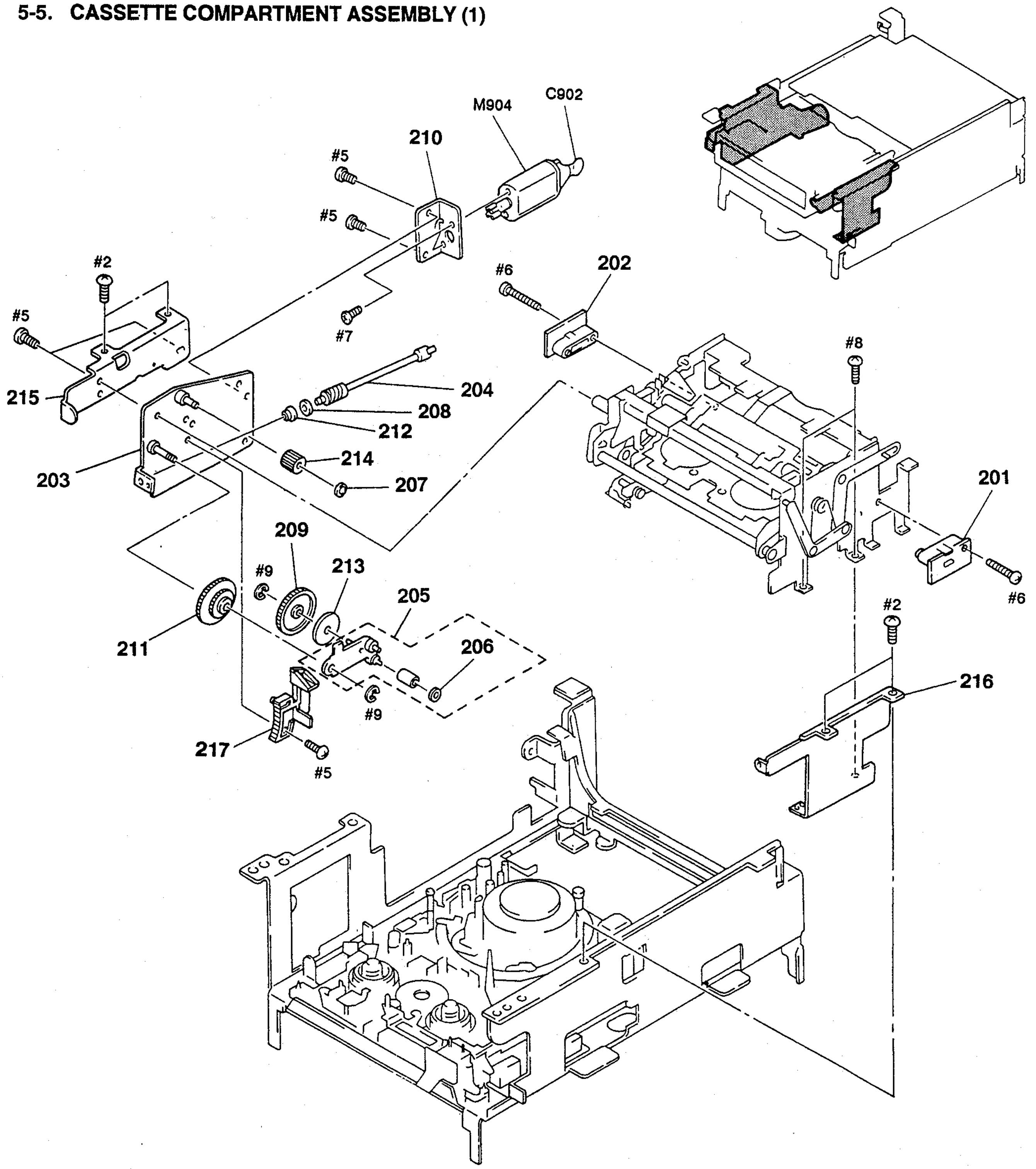
| Ref.No. | Part No. | Description | Remark |
|---|---|---|---|
| 101 | * 3-696-448-01 | HINGE, SS | |
| 102 | * A-7062-215-B | MA-41 BOARD, COMPLETE | |
| 103 | * A-7062-843-A | MC-81 BOARD, COMPLETE | |
| 104 | * A-7062-848-A | AN-2 (P) BOARD, COMPLETE | |
| 105 | * A-7062-847-A | MM-25 BOARD, COMPLETE | |
| 106 | * A-7062-846-A | PM-11 (P) BOARD, COMPLETE | |
| 107 | * 3-697-996-01 | BRACKET, FAN | |
| 108 | ⚠ 1-541-360-21 | MOTOR, DC BLUSHLESS FAN | |
| 109 | ⚠ 1-413-629-21 | SWITCHING BLOCK | |
| 110 | ⚠ - - - | INLET, AC | |
| 111 | ⚠ - - - | BUSHING | |
| 112 | * 3-943-827-01 | LABEL, MODEL NUMBER | |
| 113 | * 3-747-037-01 | LID, UPPER, PM SHIELD CASE (L) | |
| 114 | * 3-747-033-01 | LID, UPPER, MM SHIELD CASE | |
| 115 | * 3-747-055-11 | PANEL, REAR | |
| 116 | 3-724-113-01 | KNOB, ADJUST | |
| 117 | * 1-635-321-11 | CO-5 BOARD | |
| 118 | * 1-635-320-11 | SA-30 BOARD | |
| 119 | * 1-635-323-11 | TC-16 BOARD | |
| 120 | * 1-635-322-11 | CO-6 BOARD | |
| 121 | * A-7071-452-A | JB-27 BOARD, COMPLETE | |
| 122 | 1-537-301-11 | TERMINAL BOARD | |
| 123 | * A-7071-451-A | SI-12 BOARD, COMPLETE | |
| 124 | * A-7071-453-A | JB-28 BOARD, COMPLETE | |
| 125 | 3-724-182-01 | NUT (SMALL JACK), M6 | |

## 5-4. MECHANICAL DECK BOARDS ASSEMBLY


#2
151
#2
168
not supplied
#2
156
165
160
165
161
157
158
#4
165
#2
M902
not supplied
171
163
153
not supplied
#2
#21
170
155
#4
#1
159
BVTP3×8
154
162
169
#2
not supplied
166
152
#2
167
164
#2

| Ref. No. | Part No. | Description | Remark |
|---|---|---|---|
| 151 | * A-7062-168-A | MD-23 (P) BOARD, COMPLETE | |
| 152 | * A-7062-164-A | HK-5 BOARD, COMPLETE | |
| 153 | * A-7062-165-A | FR-43 BOARD, COMPLETE | |
| 154 | * A-7062-166-A | RP-103 BOARD, COMPLETE | |
| 155 | * A-7062-167-A | SE-10 (P) BOARD, COMPLETE | |
| 156 | * A-7061-824-A | MB-19 (P) BOARD, COMPLETE | |
| 157 | * A-7061-825-A | PD-19 (P) BOARD, COMPLETE | |
| 158 | * A-7061-826-A | PA-27 BOARD, COMPLETE | |
| 159 | * A-7061-827-A | RP-73 (LP) BOARD, COMPLETE | |
| 160 | * A-7070-624-A | FP-84 BOARD, COMPLETE | |
| 161 | * A-7070-625-A | FP-122 BOARD, COMPLETE | |
| 162 | * A-7070-955-A | IG-4 BOARD, COMPLETE | |
| 163 | * X-3749-135-1 | COVER BLOCK ASSY, FLEXIBLE | |
| 164 | 3-531-576-01 | RIVET | |
| 165 | * 3-671-150-11 | CLANP | |
| 166 | 3-724-107-01 | RETAINER, PC BOARD | |
| 167 | * 3-940-849-01 | PLATE, SHIELD, CORE | |
| 168 | * 3-724-199-01 | PLATE, SUPPORT, MB | |
| 169 | * 3-738-954-01 | STOPPER, HK | |
| 170 | 3-739-102-01 | LID (H), UPPER, FR SHIELD CASE | |
| 171 | 3-724-106-01 | PLATE, GUARD, FLEXIBLE | |
| M902 | 8-835-304-11 | MOTOR, DC U-11B | |

## 5-5. CASSETTE COMPARTMENT ASSEMBLY (1)


M904
C902
210
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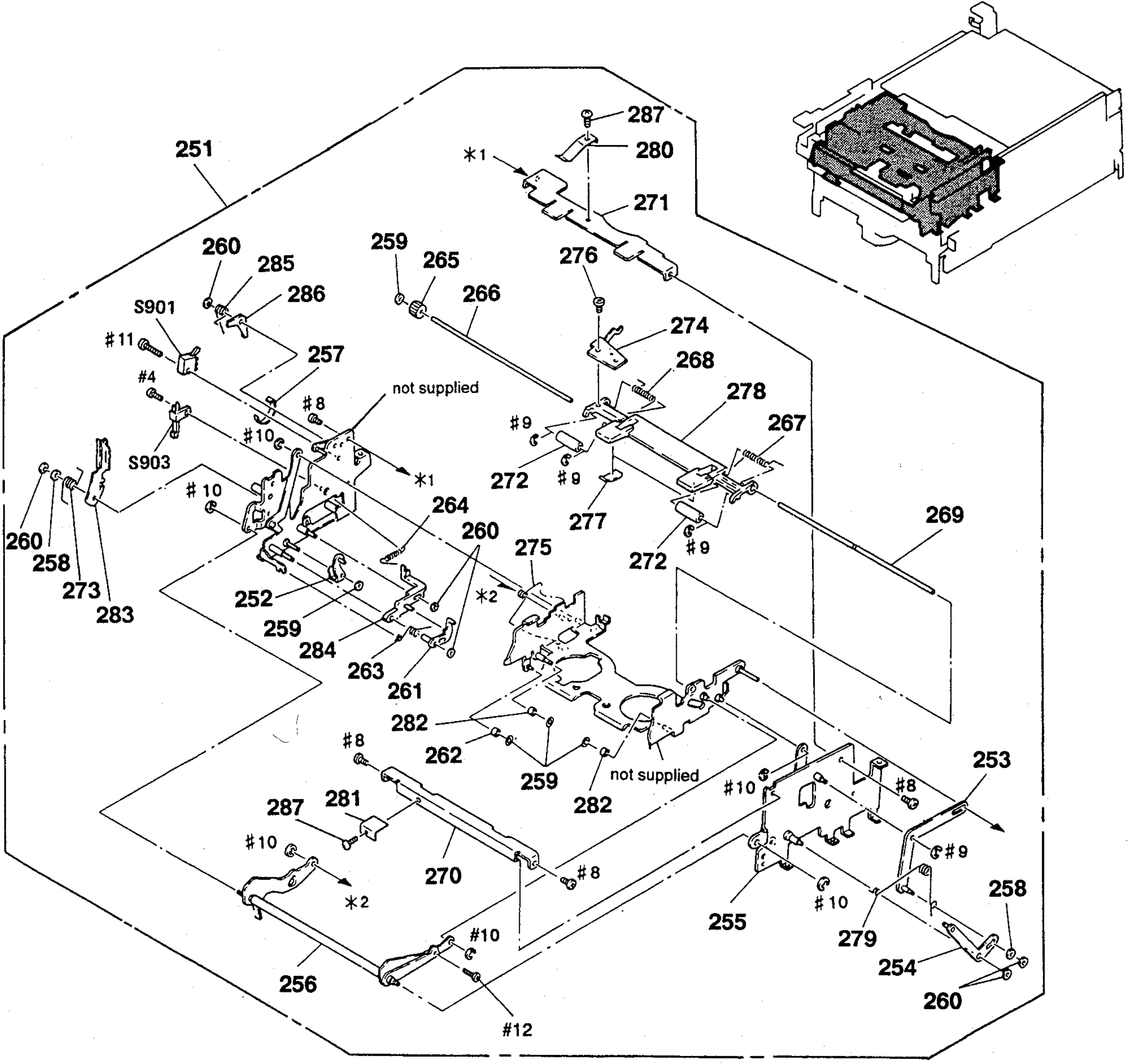
#5
#2
#5
215
203
#7
#6
202
#8
204
208
212
214
207
201
#6
209
#9
213
205
211
206
#2
216
#9
217
#5

| Ref. No. | Part No. | Description | Remark |
|---|---|---|---|
| 201 | *A-7070-627-A | TS-74 (RIGHT) BOARD, COMPLETE | |
| 202 | *A-7070-628-A | TS-74 (LEFT) BOARD, COMPLETE | |
| 203 | *X-3711-934-1 | PLATE SUB ASSY, BLOCK | |
| 204 | X-3711-935-3 | SHAFT ASSY, WORM | |
| 205 | X-3714-193-1 | LEVER ASSY (B), GEAR | |
| 206 | 3-315-414-31 | WASHER | |
| 207 | 3-669-465-00 | WASHER (1.5), STOPPER | |
| 208 | 3-701-437-11 | WASHER | |
| 209 | 3-713-430-01 | GEAR (B) | |
| 210 | *3-713-431-01 | BRACKET, MOTOR | |
| 211 | 3-713-433-01 | GEAR (A) | |
| 212 | 3-713-439-01 | BEARING | |
| 213 | *3-713-441-01 | SPRING, LEAF | |
| 214 | 3-713-452-01 | GEAR (C) | |
| 215 | *3-724-140-01 | BRACKET (LEFT) | |
| 216 | *3-724-141-01 | BRACKET (RIGHT) | |
| 217 | 3-724-913-02 | RACK | |
| C902 | 1-161-057-00 | CERAMIC 0.033uF 1% 50V | |
| M904 | X-3711-936-1 | MOTOR ASSY, FL (CASSETTE LOADING) | |

## 5-6. CASSETTE COMPARTMENT ASSEMBLY (2)


287
280
✻1
271
251
260
285
259
265
276
266
286
S901
274
#11
257
268
#4
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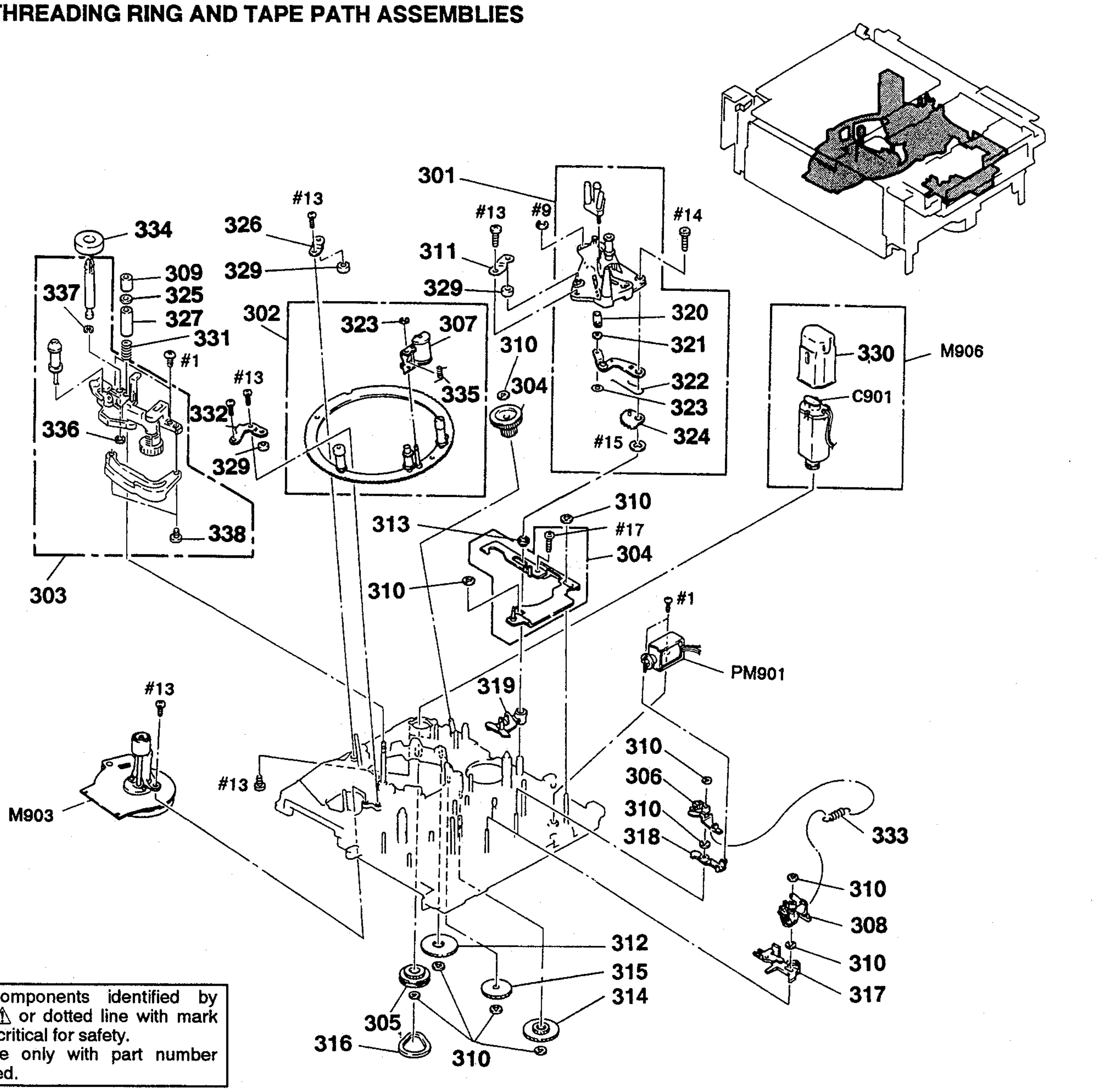
#8
278
#9
267
#10
✻1
S903
272
#9
# 10
264
260
277
269
260
258
273
283
275
272
#9
252
✻2
259
284
263
261
282
#8
262
not supplied
253
259
282
#10
#8
287
281
#10
#9
270
#8
✻2
#10
258
255
279
#10
254
260
256
#12

| Ref. No. | Part No. | Description | Remark |
|---|---|---|---|
| 251 | A-7090-645-A | CASSETTE COMPARTMENT BLOCK ASSY | |
| 252 | *X-3686-541-1 | CLAW ASSY, LOCK | |
| 253 | X-3711-930-1 | LEVER ASSY, HOLDER | |
| 254 | X-3711-931-4 | LEVER ASSY, DOOR | |
| 255 | *X-3711-932-1 | PLATE (R) ASSY, SIDE | |
| 256 | *X-3711-937-1 | JOINT ASSY | |
| 257 | *3-337-402-01 | BAND, BINDING | |
| 258 | 3-533-073-01 | WASHER | |
| 259 | 3-578-265-11 | WASHER, STOPPER | |
| 260 | 3-669-465-00 | WASHER (1.5), STOPPER | |
| 261 | 3-686-692-01 | PREVENTION, SLIDER | |
| 262 | *3-686-693-01 | ROLLER, LOCK | |
| 263 | 3-686-694-01 | SPRING, TORSION | |
| 264 | 3-696-047-01 | SPRING, TENSION | |
| 265 | 3-713-429-01 | GEAR (D) | |
| 266 | *3-713-440-01 | SHAFT, ROLLER | |
| 267 | 3-713-442-01 | SPRING (RIGHT) | |
| 268 | 3-713-445-01 | SPRING (LEFT) | |
| 269 | *3-713-457-01 | SHAFT, JOINT | |
| 270 | *3-713-458-01 | REINFORCEMENT | |
| 271 | *3-713-462-03 | STOPPER, HOLDER | |
| 272 | 3-713-466-01 | ROLLER | |
| 273 | 3-713-488-01 | SPRINT (2), TORSION | |
| 274 | 3-724-912-01 | PLATE, FUNCTION, LEVER | |
| 275 | 3-713-620-01 | SPRING (1), TORSION | |
| 276 | 3-713-622-01 | SCREW (M1.3X4), TAPPING, 0 | |
| 277 | 3-713-625-01 | SHOE, BRAKE | |
| 278 | 3-713-626-01 | COVER, MULTI | |
| 279 | 3-713-628-01 | SPRING, TORSION | |
| 280 | 3-713-658-01 | SPRING | |
| 281 | 3-716-921-01 | SPRING, LEAF | |
| 282 | 3-719-590-01 | ROLLER, ASSIST | |
| 283 | 3-721-125-01 | LEVER, LOCK | |
| 284 | 3-721-136-01 | SLIDER, LOCK | |
| 285 | 3-721-163-01 | SPRING | |
| 286 | 3-721-166-01 | LEVER, SWITCH | |
| 287 | 3-739-116-01 | SCREW (2X3), +PS | |
| S901 | 1-570-407-11 | SWITCH, SLIDE (CASSETTE LOADING) | |
| S903 | 1-553-226-00 | SWITCH, LEAF (CASSETTE LOCK) | |

## 5-7. THREADING RING AND TAPE PATH ASSEMBLIES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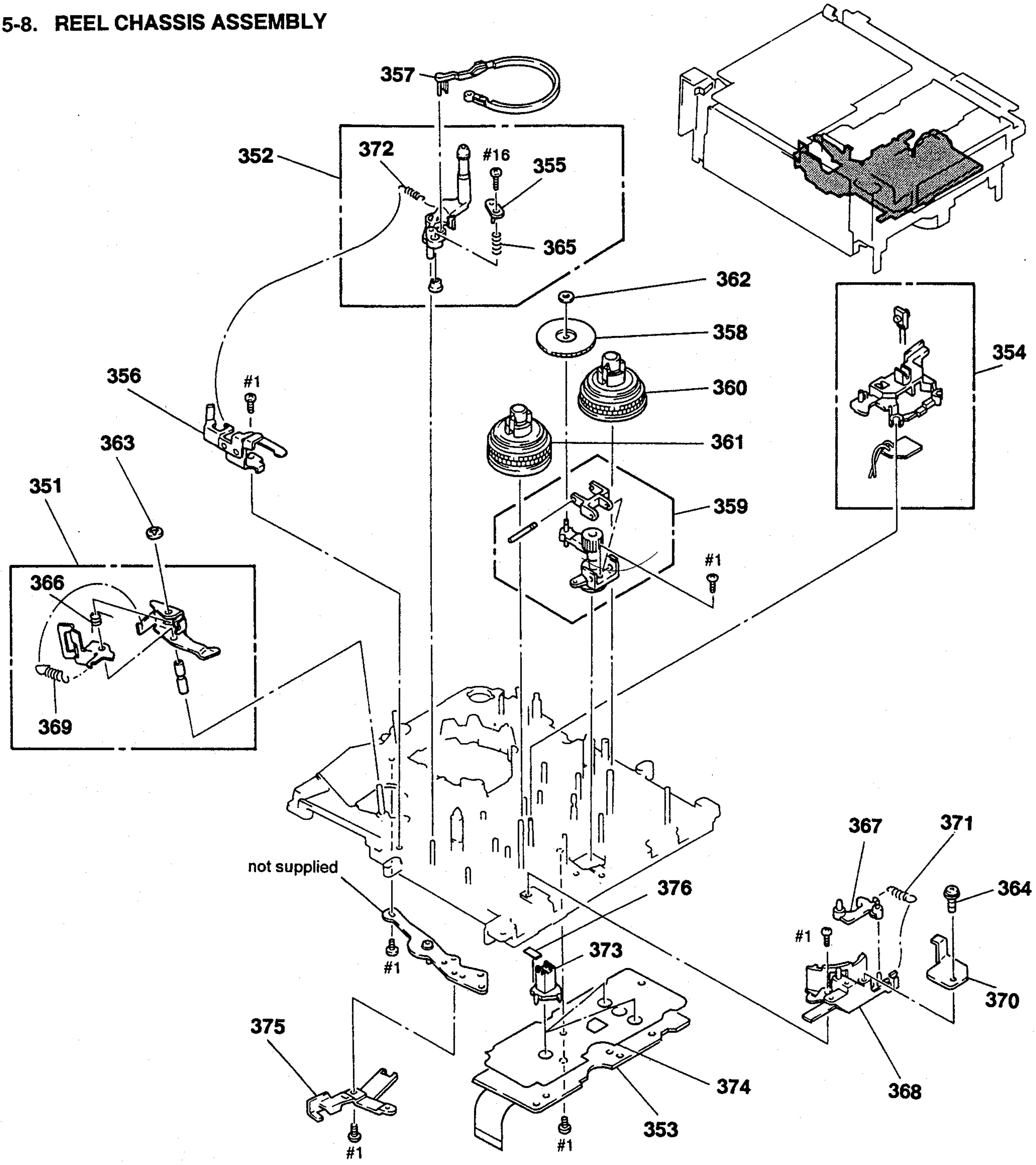
The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

| Ref. No. | Part No. | Description | Remark |
|---|---|---|---|
| 301 | A-7040-001-A | GUIDE BLOCK ASSY, SLANT | |
| 302 | A-7040-123-A | RING ASSY, THREADING | |
| 303 | A-7040-169-D | GUIDE (P) ASSY, ENTRANCE | |
| 304 | A-7040-199-A | SLIDER (M) BLOCK ASSY, LOCK | |
| 305 | X-3686-514-1 | GEAR ASSY, NO. 1 | |
| 306 | X-3686-574-1 | BRAKE ASSY, MAIN, TAKE-UP | |
| 307 | X-3686-576-1 | ARM ASSY, PINCH ROLLER | |
| 308 | X-3713-429-1 | BRAKE ASSY, MAIN, S | |
| 309 | 3-686-724-01 | NUT, GUIDE | |
| 310 | 3-669-465-00 | WASHER (1.5), STOPPER | |
| 311 | *3-686-503-01 | RETAINER, ROLLER | |
| 312 | 3-686-508-01 | GEAR, NO. 2 | |
| 313 | 3-686-537-01 | RETAINER, LOCK SLODER | |
| 314 | 3-686-544-01 | GEAR, NO. 4 | |
| 315 | 3-686-545-01 | GEAR, NO. 3 | |
| 316 | 3-686-546-01 | BELT, L-MOTOR | |
| 317 | *3-686-629-01 | SLIDER, SELECTION, UPPER & LOWER | |
| 318 | *3-686-635-01 | ARM, P | |
| 319 | *3-686-636-04 | ARM, T.S RELEASE | |
| 320 | 3-686-663-01 | WASHER, STOPPER, 2 GANG | |
| 321 | 3-701-436-21 | WASHER, POLYETHYLENE | |
| 322 | 3-686-701-01 | SPRING | |
| 323 | 3-315-384-31 | WASHER, STOPPER | |
| 324 | 3-699-509-01 | GEAR, SECTOR | |
| 325 | *3-686-894-01 | FLANGE, #3 #4 GUIDE | |
| 326 | *3-686-911-01 | PLATE, TOP, ROLLER | |
| 327 | 3-686-912-01 | GUIDE, #3 #4 | |
| 328 | 3-697-518-01 | GEAR, NO. 10 | |
| 329 | 3-697-538-01 | ROLLER, RING | |
| 330 | *3-686-757-01 | CAP, SHIELD, L MOTOR | |
| 331 | 3-699-609-01 | SPRING, COMPRESSION | |
| 332 | *3-686-675-01 | STOPPER, RING | |
| 333 | 3-713-560-01 | SPRING, TENSION | |
| 334 | 3-722-153-01 | FLYWHEEL | |
| 335 | *3-726-704-01 | SPRING, TORSION | |
| 336 | 3-315-414-00 | WASHER | |
| 337 | 3-578-254-00 | RING, RETAINING, E1.2 | |
| 338 | 3-316-938-31 | SCREW (B1.4X4), TAPPING | |
| C901 | 1-161-057-00 | CERAMIC 0.033uF 10% 50V | |
| M903 | 8-835-364-01 | MOTOR, DC BHF-2802B (CAPSTAN) | |
| M906 | A-7040-065-A | MOTOR ASSY, L (LOADING) | |
| PM901⚠ | 1-454-377-31 | SOLENOID, PLUNGER | |

## 5-8. REEL CHASSIS ASSEMBLY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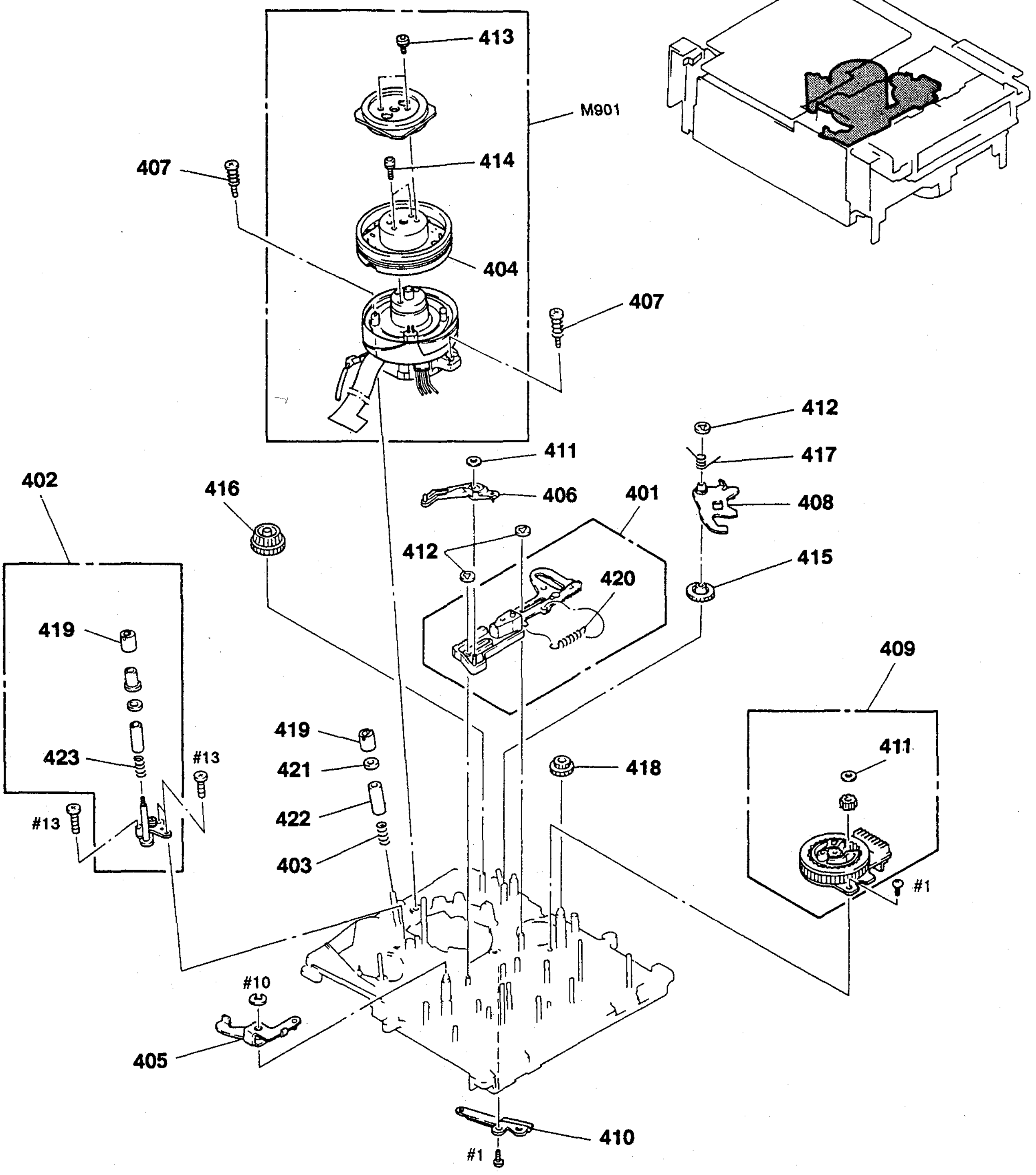
| Ref. No. | Part No. | Description | Remark |
|---|---|---|---|
| 351 | A-7040-008-A | ARM ASSY, PINCH PRESS | |
| 352 | A-7040-071-A | ARM ASSY, TENSION REGULATOR | |
| 353 | *A-7061-818-A | RS-31 BOARD, COMPLETE | |
| 354 | *A-7070-024-A | LD-1 BOARD, COMPLETE | |
| 355 | *X-3686-523-1 | PLATE ASSY, TENSION REGULATOR | |
| 356 | *X-3686-525-1 | HOOK ASSY, SPRING | |
| 357 | X-3686-531-1 | BAND ASSY, TENSION REGULATOR | |
| 358 | X-3686-763-1 | GEAR (B) ASSY, DRIVING | |
| 359 | X-3711-963-1 | DRIVING COMPLETE ASSY | |
| 360 | X-3711-998-1 | TABLE ASSY, REEL, TAKE-UP | |
| 361 | X-3713-427-1 | TABLE ASSY, REEL, S | |
| 362 | 3-315-384-31 | WASHER, STOPPER | |
| 363 | 3-669-465-00 | WASHER (1.5), STOPPER | |
| 364 | 3-669-480-11 | + PTPWH 2 | |
| 365 | 3-669-666-00 | SPRING, COMPRESSION | |
| 366 | 3-686-568-01 | SPRING, TORSION | |
| 367 | *3-686-637-01 | BRAKE (S), SOFT | |
| 368 | *3-686-760-01 | GUIDE, BAND | |
| 369 | 3-686-885-01 | SPRING, TENSION | |
| 370 | *3-686-991-01 | STOPPER, REEL TABLE | |
| 371 | 3-714-014-01 | SPRING, TENSION | |
| 372 | 3-699-519-01 | SPRING, TENSION | |
| 373 | 3-712-410-01 | HOLDER, RS | |
| 374 | 3-712-411-01 | INSULATOR, RS | |
| 375 | 3-712-406-01 | CLAMP, WIRE | |
| 376 | 3-722-175-01 | SPACER, MD | |

## 5-9. HEAD DRUM AND THREADING RING ASSEMBLIES



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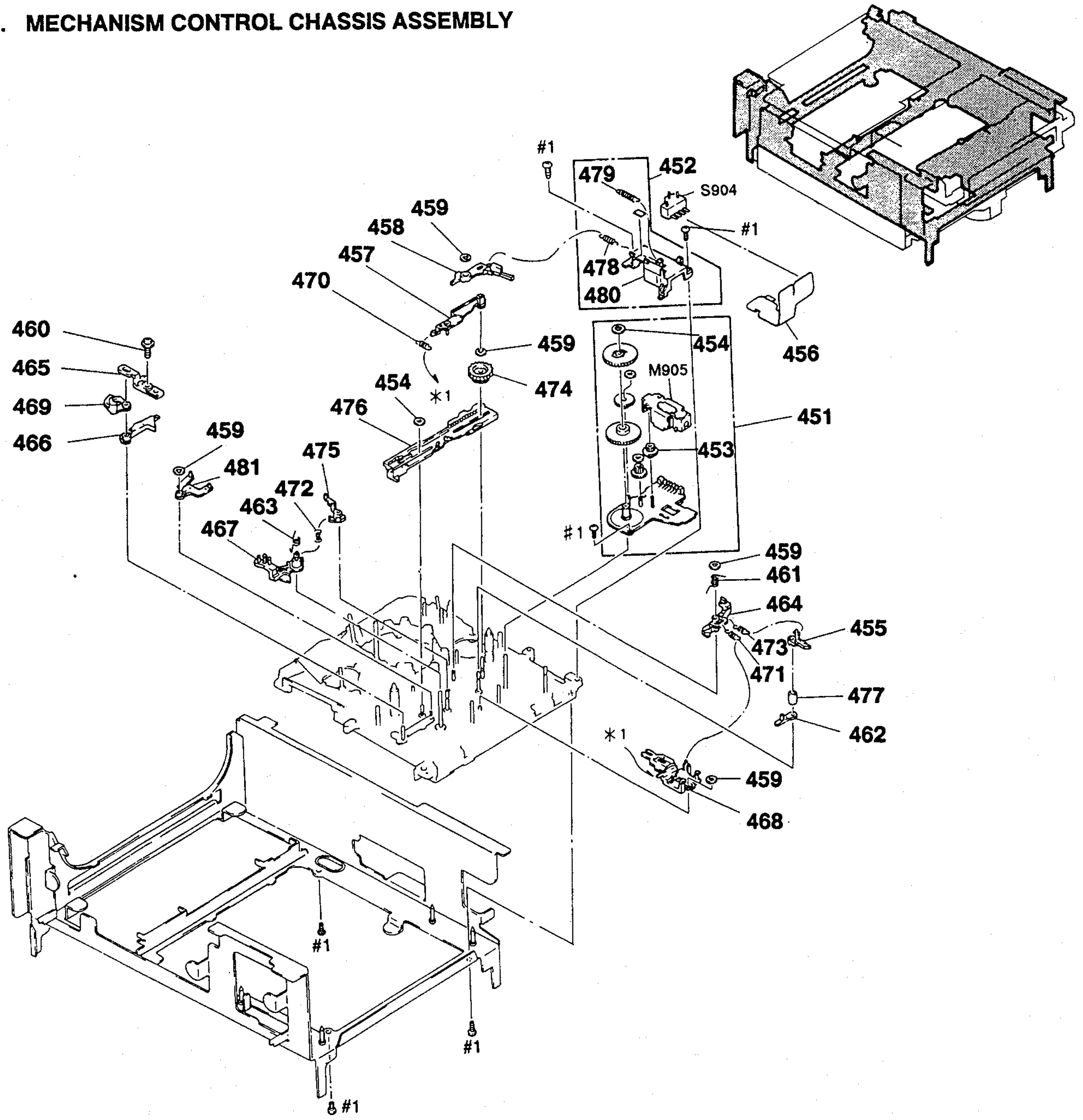
| Ref. No. | Part No. | Description | Remark |
|---|---|---|---|
| 401 | *A-7040-010-A | SLIDER ASSY, L | |
| 402 | A-7040-058-A | GUIDE BLOCK COMPLETE ASSY, #5 | |
| 403 | A-7048-389-A | DRUM ASSY, ROTALY (DGH-68A-R) | |
| 404 | A-7049-328-A | DRUM ASSY, ROTALY UPPER (DGR-68-R) | |
| 405 | *X-3686-509-1 | LEVER ASSY, PINCH PRESS | |
| 406 | *X-3686-518-3 | ARM ASSY | |
| 407 | X-3686-569-1 | SCREW ASSY, FITTING | |
| 408 | X-3686-579-1 | CHANGE ASSY, DRIVE | |
| 409 | X-3712-403-1 | L-SW ASSY (LS-9 BOARD) | |
| 410 | 1-535-535-11 | TERMINAL, SHAFT GROUND | |
| 411 | 3-315-384-31 | WASHER, STOPPER | |
| 412 | 3-669-465-00 | WASHER (1.5), STOPPER | |
| 413 | 3-686-422-01 | WASHER (2X2.7), BOLT HOLE | |
| 414 | 3-686-493-01 | SCREW (M2X5), P1 | |
| 415 | 3-686-535-01 | GEAR, NO.8 | |
| 416 | 3-686-539-01 | GEAR, NO.9 | |
| 417 | 3-686-540-01 | SPRING, TORSION | |
| 418 | 3-686-702-01 | GEAR, DRIVING, GUIDE, SLANT | |
| 419 | 3-686-724-01 | NUT, GUIDE | |
| 420 | 3-686-886-01 | SPRING, TENSION | |
| 421 | *3-686-894-01 | FLANGE, #3 #4 GUIDE | |
| 422 | 3-686-912-01 | GUIDE, #3 #4 | |
| 423 | 3-699-514-01 | SPRING, COMPRESSION | |
| M901 | A-7048-389-A | DRUM ASSY (DGH-68A-R) | |

## 5-10. MECHANISM CONTROL CHASSIS ASSEMBLY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| Ref. No. | Part No. | Description | Remark |
|---|---|---|---|
| 451 | A-7040-159-A | M-SW ASSY | |
| 452 | A-7040-198-A | COVER (M) ASSY, C MOTOR | |
| 453 | 3-308-502-00 | WHEEL, WORM | |
| 454 | 3-315-384-31 | WASHER, STOPPER | |
| 455 | X-3711-993-1 | BRAKE ASSY, REW | |
| 456 | *1-630-923-11 | FP-206 FLEXIBLE BOARD | |
| 457 | *X-3686-528-4 | ARM ASSY, B RELEASE | |
| 458 | X-3711-987-2 | BRAKE ASSY, T.S | |
| 459 | 3-669-465-00 | WASHER (1.5), STOPPER | |
| 460 | 3-686-528-01 | SCREW (2X6), +PSW | |
| 461 | 3-686-579-01 | SPRING | |
| 462 | *3-686-580-01 | ARM, SET UP | |
| 463 | 3-686-603-04 | SPRING | |
| 464 | *3-686-634-01 | ARM, RL | |
| 465 | *3-686-642-01 | PLATE, ADJUSTMENT, BAND | |
| 466 | *3-686-643-01 | ARM, MODE | |
| 467 | *3-686-644-01 | ARM, BAND | |
| 468 | *3-686-656-01 | SLIDER, B RELEASE | |
| 469 | *3-686-755-01 | DISK, EJECT | |
| 470 | 3-686-903-01 | SPRING, TENSION | |
| 471 | 3-686-904-01 | SPRING, TENSION | |
| 472 | 3-686-905-02 | SPRING, TENSION | |
| 473 | 3-686-906-01 | SPRING, TENSION | |
| 474 | 3-686-909-01 | GEAR, MODE OUTPUT | |
| 475 | 3-686-996-01 | BRAKE (S), HARD | |
| 476 | 3-716-935-01 | SLIDER, M | |
| 477 | 3-716-933-01 | SPACER, REW BRAKE | |
| 478 | 3-714-035-01 | SPRING, TENSION | |
| 479 | 3-722-110-01 | SPRING, TENSION | |
| 480 | 3-739-107-01 | COVER (M), C MOTOR | |
| 481 | *X-3686-530-01 | ARM (A) ASSY, SELECTION | |
| M905 | 8-835-138-01 | MOTOR, DC (DNR-5301B) (CONTROL) | |
| S904 | 1-572-298-21 | SWITCH, PUSH (REC PROOF, MPHG, ME/MP) | |

AN-2 (P)

# SECTION 6
# ELECTRICAL PARTS LIST

**NOTE:**

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

When indicating parts by reference number, please include the board name.

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX, -X mean standardized parts, so they may have some difference from the original one.
- RESISTORS
  All resistors are in ohms
  METAL: Metal-film resistor
  METAL OXIDE: Metal Oxide-film resistor
  F : nonflammable
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- SEMICONDUCTORS
  In each case, u: μ, for example:
  uA...: μA..., uPA...: μPA...,
  uPB...: μPB..., uPC...: μPC...,
  uPD...: μPD...
- CAPACITORS
  uF : μF
- COILS
  uH : μH

* A-7062-848-A AN-2 (P) BOARD; COMPLETE
************************
(Ref.No 13,000 Series)

< CAPACITOR >

| Ref. No. | Part No. | Description | | | Remark |
|---|---|---|---|---|---|
| C001 | 1-126-157-11 | ELECT | 10uF | 20% | 16V |
| C002 | 1-124-589-11 | ELECT | 47uF | 20% | 16V |
| C003 | 1-126-157-11 | ELECT | 10uF | 20% | 16V |
| C004 | 1-124-589-11 | ELECT | 47uF | 20% | 16V |
| C005 | 1-124-589-11 | ELECT | 47uF | 20% | 16V |
| C006 | 1-164-232-11 | CERAMIC CHIP | 0.01uF | | 50V |
| C007 | 1-124-584-00 | ELECT | 100uF | 20% | 10V |
| C008 | 1-164-232-11 | CERAMIC CHIP | 0.01uF | | 50V |
| C009 | 1-126-157-11 | ELECT | 10uF | 20% | 16V |
| C010 | 1-126-157-11 | ELECT | 10uF | 20% | 16V |
| C013 | 1-164-232-11 | CERAMIC CHIP | 0.01uF | | 50V |
| C014 | 1-126-157-11 | ELECT | 10uF | 20% | 16V |
| C018 | 1-126-157-11 | ELECT | 10uF | 20% | 16V |
| C019 | 1-124-589-11 | ELECT | 47uF | 20% | 16V |
| C020 | 1-126-157-11 | ELECT | 10uF | 20% | 16V |
| C021 | 1-126-157-11 | ELECT | 10uF | 20% | 16V |
| C023 | 1-164-232-11 | CERAMIC CHIP | 0.01uF | | 50V |
| C024 | 1-126-157-11 | ELECT | 10uF | 20% | 16V |
| C025 | 1-126-157-11 | ELECT | 10uF | 20% | 16V |
| C028 | 1-164-232-11 | CERAMIC CHIP | 0.01uF | | 50V |
| C029 | 1-126-157-11 | ELECT | 10uF | 20% | 16V |
| C030 | 1-126-157-11 | ELECT | 10uF | 20% | 16V |
| C033 | 1-164-232-11 | CERAMIC CHIP | 0.01uF | | 50V |
| C034 | 1-126-157-11 | ELECT | 10uF | 20% | 16V |
| C035 | 1-164-232-11 | CERAMIC CHIP | 0.01uF | | 50V |
| C036 | 1-164-232-11 | CERAMIC CHIP | 0.01uF | | 50V |
| C037 | 1-164-232-11 | CERAMIC CHIP | 0.01uF | | 50V |
| C039 | 1-163-129-00 | CERAMIC CHIP | 330PF | 5% | 50V |
| C040 | 1-164-633-11 | CERAMIC CHIP | 0.1uF | 10% | 25V |
| C041 | 1-164-633-11 | CERAMIC CHIP | 0.1uF | 10% | 25V |
| C042 | 1-164-633-11 | CERAMIC CHIP | 0.1uF | 10% | 25V |
| C043 | 1-164-161-11 | CERAMIC CHIP | 0.0022uF | 10% | 100V |
| C047 | 1-124-589-11 | ELECT | 47uF | 20% | 16V |
| C048 | 1-124-589-11 | ELECT | 47uF | 20% | 16V |
| C049 | 1-124-589-11 | ELECT | 47uF | 20% | 16V |
| C050 | 1-164-232-11 | CERAMIC CHIP | 0.01uF | | 50V |
| C051 | 1-124-584-00 | ELECT | 100uF | 20% | 10V |
| C052 | 1-164-232-11 | CERAMIC CHIP | 0.01uF | | 50V |
| C053 | 1-124-584-00 | ELECT | 100uF | 20% | 10V |
| C054 | 1-164-633-11 | CERAMIC CHIP | 0.1uF | 10% | 25V |
| C055 | 1-124-589-11 | ELECT | 47uF | 20% | 16V |
| C056 | 1-164-633-11 | CERAMIC CHIP | 0.1uF | 10% | 25V |
| C057 | 1-164-633-11 | CERAMIC CHIP | 0.1uF | 10% | 25V |
| C058 | 1-124-589-11 | ELECT | 47uF | 20% | 16V |
| C059 | 1-164-633-11 | CERAMIC CHIP | 0.1uF | 10% | 25V |
| C060 | 1-164-633-11 | CERAMIC CHIP | 0.1uF | 10% | 25V |
| C061 | 1-164-633-11 | CERAMIC CHIP | 0.1uF | 10% | 25V |
| C062 | 1-164-633-11 | CERAMIC CHIP | 0.1uF | 10% | 25V |
| C063 | 1-164-633-11 | CERAMIC CHIP | 0.1uF | 10% | 25V |
| C064 | 1-164-232-11 | CERAMIC CHIP | 0.01uF | | 50V |
| C065 | 1-164-232-11 | CERAMIC CHIP | 0.01uF | | 50V |
| C066 | 1-164-232-11 | CERAMIC CHIP | 0.01uF | | 50V |
| C067 | 1-164-633-11 | CERAMIC CHIP | 0.1uF | 10% | 25V |
| C068 | 1-164-232-11 | CERAMIC CHIP | 0.01uF | | 50V |
| C069 | 1-164-232-11 | CERAMIC CHIP | 0.01uF | | 50V |
| C070 | 1-164-633-11 | CERAMIC CHIP | 0.1uF | 10% | 25V |
| C071 | 1-164-232-11 | CERAMIC CHIP | 0.01uF | | 50V |
| C072 | 1-164-633-11 | CERAMIC CHIP | 0.1uF | 10% | 25V |
| C073 | 1-164-232-11 | CERAMIC CHIP | 0.01uF | | 50V |
| C074 | 1-164-232-11 | CERAMIC CHIP | 0.01uF | | 50V |
| C075 | 1-124-589-11 | ELECT | 47uF | 20% | 16V |
| C076 | 1-164-232-11 | CERAMIC CHIP | 0.01uF | | 50V |
| C077 | 1-164-633-11 | CERAMIC CHIP | 0.1uF | 10% | 25V |

| Ref. No. | Part No. | Description | | | Remark |
|---|---|---|---|---|---|
| C078 | 1-164-633-11 | CERAMIC CHIP | 0.1uF | 10% | 25V |
| C079 | 1-164-232-11 | CERAMIC CHIP | 0.01uF | | 50V |
| C080 | 1-164-232-11 | CERAMIC CHIP | 0.01uF | | 50V |
| C081 | 1-164-232-11 | CERAMIC CHIP | 0.01uF | | 50V |
| C082 | 1-164-633-11 | CERAMIC CHIP | 0.1uF | 10% | 25V |
| C083 | 1-164-633-11 | CERAMIC CHIP | 0.1uF | 10% | 25V |
| C084 | 1-164-232-11 | CERAMIC CHIP | 0.01uF | | 50V |
| C085 | 1-164-232-11 | CERAMIC CHIP | 0.01uF | | 50V |
| C086 | 1-164-232-11 | CERAMIC CHIP | 0.01uF | | 50V |
| C087 | 1-164-232-11 | CERAMIC CHIP | 0.01uF | | 50V |
| C088 | 1-164-232-11 | CERAMIC CHIP | 0.01uF | | 50V |
| C089 | 1-164-232-11 | CERAMIC CHIP | 0.01uF | | 50V |
| C090 | 1-164-633-11 | CERAMIC CHIP | 0.1uF | 10% | 25V |
| C091 | 1-164-232-11 | CERAMIC CHIP | 0.01uF | | 50V |
| C092 | 1-164-232-11 | CERAMIC CHIP | 0.01uF | | 50V |
| C093 | 1-164-232-11 | CERAMIC CHIP | 0.01uF | | 50V |
| C094 | 1-164-232-11 | CERAMIC CHIP | 0.01uF | | 50V |
| C095 | 1-164-232-11 | CERAMIC CHIP | 0.01uF | | 50V |
| C096 | 1-124-589-11 | ELECT | 47uF | 20% | 16V |
| C097 | 1-164-232-11 | CERAMIC CHIP | 0.01uF | | 50V |
| C098 | 1-126-163-11 | ELECT | 4.7uF | 20% | 50V |
| C099 | 1-126-163-11 | ELECT | 4.7uF | 20% | 50V |
| C100 | 1-124-584-00 | ELECT | 100uF | 20% | 10V |
| C101 | 1-126-163-11 | ELECT | 4.7uF | 20% | 50V |
| C102 | 1-124-589-11 | ELECT | 47uF | 20% | 16V |
| C103 | 1-124-584-00 | ELECT | 100uF | 20% | 10V |
| C104 | 1-126-163-11 | ELECT | 4.7uF | 20% | 50V |
| C105 | 1-126-163-11 | ELECT | 4.7uF | 20% | 50V |
| C106 | 1-126-163-11 | ELECT | 4.7uF | 20% | 50V |
| C107 | 1-124-589-11 | ELECT | 47uF | 20% | 16V |
| C108 | 1-164-232-11 | CERAMIC CHIP | 0.01uF | | 50V |
| C109 | 1-124-584-00 | ELECT | 100uF | 20% | 10V |
| C110 | 1-126-163-11 | ELECT | 4.7uF | 20% | 50V |
| C111 | 1-124-584-00 | ELECT | 100uF | 20% | 10V |
| C112 | 1-126-163-11 | ELECT | 4.7uF | 20% | 50V |
| C113 | 1-126-157-11 | ELECT | 10uF | 20% | 16V |
| C114 | 1-164-633-11 | CERAMIC CHIP | 0.1uF | 10% | 25V |
| C115 | 1-124-589-11 | ELECT | 47uF | 20% | 16V |
| C116 | 1-164-633-11 | CERAMIC CHIP | 0.1uF | 10% | 25V |
| C117 | 1-164-633-11 | CERAMIC CHIP | 0.1uF | 10% | 25V |
| C118 | 1-126-162-11 | ELECT | 3.3uF | 20% | 50V |
| C119 | 1-164-232-11 | CERAMIC CHIP | 0.01uF | | 50V |
| C120 | 1-164-232-11 | CERAMIC CHIP | 0.01uF | | 50V |
| C121 | 1-164-232-11 | CERAMIC CHIP | 0.01uF | | 50V |
| C122 | 1-164-232-11 | CERAMIC CHIP | 0.01uF | | 50V |
| C123 | 1-124-589-11 | ELECT | 47uF | 20% | 16V |
| C129 | 1-130-479-00 | MYLAR | 0.0047uF | 5% | 50V |
| C130 | 1-124-589-11 | ELECT | 47uF | 20% | 16V |

| Ref. No. | Part No. | Description | | | Remark |
|---|---|---|---|---|---|
| C131 | 1-164-232-11 | CERAMIC CHIP | 0.01uF | | 50V |
| C132 | 1-130-487-00 | MYLAR | 0.022uF | 5% | 50V |
| C133 | 1-130-487-00 | MYLAR | 0.022uF | 5% | 50V |
| C134 | 1-163-141-00 | CERAMIC CHIP | 0.001uF | 5% | 50V |
| C135 | 1-126-160-11 | ELECT | 1uF | 20% | 50V |
| C136 | 1-163-036-00 | CERAMIC CHIP | 0.068uF | | 50V |
| C137 | 1-126-160-11 | ELECT | 1uF | 20% | 50V |
| C138 | 1-163-117-00 | CERAMIC CHIP | 100PF | 5% | 50V |
| C139 | 1-124-465-00 | ELECT | 0.47uF | 20% | 50V |
| C140 | 1-164-161-11 | CERAMIC CHIP | 0.0022uF | 10% | 100V |
| C141 | 1-163-141-00 | CERAMIC CHIP | 0.001uF | 5% | 50V |
| C142 | 1-126-157-11 | ELECT | 10uF | 20% | 16V |
| C143 | 1-124-589-11 | ELECT | 47uF | 20% | 16V |
| C144 | 1-163-141-00 | CERAMIC CHIP | 0.001uF | 5% | 50V |
| C145 | 1-126-160-11 | ELECT | 1uF | 20% | 50V |
| C146 | 1-163-036-00 | CERAMIC CHIP | 0.068uF | | 50V |
| C147 | 1-126-160-11 | ELECT | 1uF | 20% | 50V |
| C148 | 1-163-117-00 | CERAMIC CHIP | 100PF | 5% | 50V |
| C149 | 1-124-465-00 | ELECT | 0.47uF | 20% | 50V |
| C150 | 1-164-232-11 | CERAMIC CHIP | 0.01uF | | 50V |
| C151 | 1-124-589-11 | ELECT | 47uF | 20% | 16V |
| C152 | 1-163-106-00 | CERAMIC CHIP | 36PF | 5% | 50V |
| C153 | 1-163-241-11 | CERAMIC CHIP | 39PF | 5% | 50V |
| C154 | 1-124-589-11 | ELECT | 47uF | 20% | 16V |
| C155 | 1-126-157-11 | ELECT | 10uF | 20% | 16V |
| C156 | 1-164-232-11 | CERAMIC CHIP | 0.01uF | | 50V |
| C157 | 1-163-141-00 | CERAMIC CHIP | 0.001uF | 5% | 50V |
| C158 | 1-164-232-11 | CERAMIC CHIP | 0.01uF | | 50V |
| C159 | 1-163-141-00 | CERAMIC CHIP | 0.001uF | 5% | 50V |
| C160 | 1-163-235-11 | CERAMIC CHIP | 22PF | 5% | 50V |
| C161 | 1-163-235-11 | CERAMIC CHIP | 22PF | 5% | 50V |
| C162 | 1-163-106-00 | CERAMIC CHIP | 36PF | 5% | 50V |
| C163 | 1-163-241-11 | CERAMIC CHIP | 39PF | 5% | 50V |
| C164 | 1-124-589-11 | ELECT | 47uF | 20% | 16V |
| C165 | 1-126-157-11 | ELECT | 10uF | 20% | 16V |
| C166 | 1-164-232-11 | CERAMIC CHIP | 0.01uF | | 50V |
| C167 | 1-164-232-11 | CERAMIC CHIP | 0.01uF | | 50V |
| C168 | 1-163-141-00 | CERAMIC CHIP | 0.001uF | 5% | 50V |
| C169 | 1-124-589-11 | ELECT | 47uF | 20% | 16V |
| C170 | 1-163-235-11 | CERAMIC CHIP | 22PF | 5% | 50V |
| C171 | 1-163-235-11 | CERAMIC CHIP | 22PF | 5% | 50V |
| C172 | 1-163-141-00 | CERAMIC CHIP | 0.001uF | 5% | 50V |
| C173 | 1-124-589-11 | ELECT | 47uF | 20% | 16V |
| C174 | 1-164-232-11 | CERAMIC CHIP | 0.01uF | | 50V |
| C175 | 1-126-157-11 | ELECT | 10uF | 20% | 16V |
| C176 | 1-164-232-11 | CERAMIC CHIP | 0.01uF | | 50V |
| C178 | 1-164-232-11 | CERAMIC CHIP | 0.01uF | | 50V |
| C179 | 1-164-232-11 | CERAMIC CHIP | 0.01uF | | 50V |
| C180 | 1-164-232-11 | CERAMIC CHIP | 0.01uF | | 50V |

# AN-2 (P)

| Ref. No. | Part No. | Description | | | Remark |
|---|---|---|---|---|---|
| C181 | 1-164-232-11 | CERAMIC CHIP | 0.01uF | | 50V |
| C182 | 1-124-589-11 | ELECT | 47uF | 20% | 16V |
| C183 | 1-164-232-11 | CERAMIC CHIP | 0.01uF | | 50V |
| C184 | 1-124-589-11 | ELECT | 47uF | 20% | 16V |
| C185 | 1-126-157-11 | ELECT | 10uF | 20% | 16V |
| C186 | 1-126-157-11 | ELECT | 10uF | 20% | 16V |
| C187 | 1-164-232-11 | CERAMIC CHIP | 0.01uF | | 50V |
| C188 | 1-164-232-11 | CERAMIC CHIP | 0.01uF | | 50V |
| C189 | 1-126-157-11 | ELECT | 10uF | 20% | 16V |
| C190 | 1-126-157-11 | ELECT | 10uF | 20% | 16V |
| C191 | 1-126-157-11 | ELECT | 10uF | 20% | 16V |
| C192 | 1-164-232-11 | CERAMIC CHIP | 0.01uF | | 50V |
| C193 | 1-164-232-11 | CERAMIC CHIP | 0.01uF | | 50V |
| C194 | 1-164-232-11 | CERAMIC CHIP | 0.01uF | | 50V |
| C195 | 1-124-589-11 | ELECT | 47uF | 20% | 16V |
| C196 | 1-124-589-11 | ELECT | 47uF | 20% | 16V |
| C197 | 1-124-589-11 | ELECT | 47uF | 20% | 16V |
| C198 | 1-124-589-11 | ELECT | 47uF | 20% | 16V |
| C199 | 1-164-232-11 | CERAMIC CHIP | 0.01uF | | 50V |
| C200 | 1-126-157-11 | ELECT | 10uF | 20% | 16V |
| C201 | 1-163-989-11 | CERAMIC CHIP | 0.033uF | 10% | 25V |
| C202 | 1-163-103-00 | CERAMIC CHIP | 27PF | 5% | 50V |
| C203 | 1-124-589-11 | ELECT | 47uF | 20% | 16V |
| C204 | 1-124-589-11 | ELECT | 47uF | 20% | 16V |
| C205 | 1-124-589-11 | ELECT | 47uF | 20% | 16V |
| C206 | 1-126-157-11 | ELECT | 10uF | 20% | 16V |
| C207 | 1-164-232-11 | CERAMIC CHIP | 0.01uF | | 50V |
| C208 | 1-124-589-11 | ELECT | 47uF | 20% | 16V |
| C209 | 1-124-589-11 | ELECT | 47uF | 20% | 16V |
| C210 | 1-124-589-11 | ELECT | 47uF | 20% | 16V |
| C211 | 1-124-589-11 | ELECT | 47uF | 20% | 16V |
| C212 | 1-124-589-11 | ELECT | 47uF | 20% | 16V |
| C213 | 1-124-472-11 | ELECT | 470uF | 20% | 10V |
| C214 | 1-124-472-11 | ELECT | 470uF | 20% | 10V |
| C215 | 1-124-472-11 | ELECT | 470uF | 20% | 10V |
| C216 | 1-124-472-11 | ELECT | 470uF | 20% | 10V |
| C218 | 1-124-589-11 | ELECT | 47uF | 20% | 16V |
| C219 | 1-124-589-11 | ELECT | 47uF | 20% | 16V |
| C220 | 1-124-589-11 | ELECT | 47uF | 20% | 16V |
| C221 | 1-164-232-11 | CERAMIC CHIP | 0.01uF | | 50V |
| C222 | 1-164-232-11 | CERAMIC CHIP | 0.01uF | | 50V |
| C223 | 1-164-161-11 | CERAMIC CHIP | 0.0022uF | 10% | 100V |
| C224 | 1-163-141-00 | CERAMIC CHIP | 0.001uF | 5% | 50V |
| C225 | 1-126-157-11 | ELECT | 10uF | 20% | 16V |
| C226 | 1-164-232-11 | CERAMIC CHIP | 0.01uF | | 50V |
| C227 | 1-164-232-11 | CERAMIC CHIP | 0.01uF | | 50V |
| C228 | 1-126-153-11 | ELECT | 22uF | 20% | 6.3V |
| C229 | 1-163-129-00 | CERAMIC CHIP | 330PF | 5% | 50V |
| C230 | 1-163-235-11 | CERAMIC CHIP | 22PF | 5% | 50V |

| Ref. No. | Part No. | Description | Remark |
|---|---|---|---|
| | | < FILTER > | |
| CF001 | 1-409-332-00 | CERAMIC TRAP (4.5MHZ) | |
| | | < CONNECTOR > | |
| CN001 | 1-506-471-11 | CONNECTOR 6P, MALE | |
| CN002 | 1-506-473-11 | CONNECTOR 8P, MALE | |
| CN003 | 1-506-478-11 | CONNECTOR 13P, MALE | |
| CN004 | 1-506-478-11 | CONNECTOR 13P, MALE | |
| CN005 | 1-506-471-11 | CONNECTOR 6P, MALE | |
| CN006 | 1-564-006-81 | PIN, CONNECTOR 7P | |
| CN007 | 1-506-471-11 | CONNECTOR 6P, MALE | |
| CN008 | 1-506-476-11 | CONNECTOR 11P, MALE | |
| CN009 | * 1-564-011-71 | PIN, CONNECTOR 12P | |
| CN010 | 1-506-470-11 | CONNECTOR 5P, MALE | |
| CN011 | 1-506-471-11 | CONNECTOR 6P, MALE | |
| CN012 | 1-506-471-11 | CONNECTOR 6P, MALE | |
| CN013 | 1-564-006-71 | PIN, CONNECTOR 7P | |
| | | < IC > | |
| IC001 | 8-759-711-79 | IC NJM2233BM | |
| IC002 | 8-759-711-71 | IC NJM2234M | |
| IC003 | 8-759-711-79 | IC NJM2233BM | |
| IC004 | 8-759-711-79 | IC NJM2233BM | |
| IC005 | 8-759-711-79 | IC NJM2233BM | |
| IC006 | 8-759-711-79 | IC NJM2233BM | |
| IC007 | 8-759-711-71 | IC NJM2234M | |
| IC008 | 8-759-972-26 | IC LM1881N | |
| IC009 | 8-759-032-11 | IC MC74HC04AF | |
| IC010 | 8-759-032-11 | IC MC74HC04AF | |
| IC011 | 8-759-711-79 | IC NJM2233BM | |
| IC012 | 8-759-711-71 | IC NJM2234M | |
| IC013 | 8-759-711-79 | IC NJM2233BM | |
| IC014 | 8-759-711-79 | IC NJM2233BM | |
| IC015 | 8-759-711-79 | IC NJM2233BM | |
| IC016 | 8-759-711-79 | IC NJM2233BM | |
| IC017 | 8-759-711-71 | IC NJM2234M | |
| IC018 | 8-752-009-51 | IC CX20095A | |
| IC019 | 8-752-009-51 | IC CX20095A | |
| IC020 | 8-759-710-29 | IC NJM2235M | |
| IC021 | 8-759-032-41 | IC MC74HC157AF | |
| IC022 | 8-759-711-71 | IC NJM2234M | |
| IC023 | 8-759-032-11 | IC MC74HC04AF | |
| IC024 | 8-759-206-28 | IC TC74HC123F | |
| IC025 | 8-759-710-61 | IC NJM2229M | |
| IC026 | 8-759-710-61 | IC NJM2229M | |
| IC027 | 8-759-630-81 | IC M50455-079FP | |
| IC028 | 8-759-630-81 | IC M50455-079FP | |
| IC029 | 8-759-711-71 | IC NJM2234M | |

| Ref. No. | Part No. | Description | Remark |
|---|---|---|---|
| IC030 | 8-759-710-62 | IC NJM2246M | |
| IC031 | 8-759-711-79 | IC NJM2233BM | |
| IC032 | 8-759-711-79 | IC NJM2233BM | |

< COIL >

| Ref. No. | Part No. | Description | Remark |
|---|---|---|---|
| L001 | 1-408-978-21 | INDUCTOR 47uH | |
| L002 | 1-408-978-21 | INDUCTOR 47uH | |
| L005 | 1-408-972-21 | INDUCTOR 15uH | |
| L006 | 1-408-972-21 | INDUCTOR 15uH | |
| L007 | 1-408-971-21 | INDUCTOR 12uH | |
| L008 | 1-408-978-21 | INDUCTOR 47uH | |
| L009 | 1-408-978-21 | INDUCTOR 47uH | |

< TRANSISTOR >

| Ref. No. | Part No. | Description | Remark |
|---|---|---|---|
| Q001 | 8-729-100-66 | TRANSISTOR 2SC1623 | |
| Q002 | 8-729-100-66 | TRANSISTOR 2SC1623 | |
| Q003 | 8-729-100-66 | TRANSISTOR 2SC1623 | |
| Q004 | 8-729-100-66 | TRANSISTOR 2SC1623 | |
| Q005 | 8-729-100-66 | TRANSISTOR 2SC1623 | |
| Q006 | 8-729-100-66 | TRANSISTOR 2SC1623 | |
| Q007 | 8-729-100-66 | TRANSISTOR 2SC1623 | |
| Q008 | 8-729-100-66 | TRANSISTOR 2SC1623 | |
| Q009 | 8-729-100-66 | TRANSISTOR 2SC1623 | |
| Q010 | 8-729-100-66 | TRANSISTOR 2SC1623 | |
| Q011 | 8-729-100-66 | TRANSISTOR 2SC1623 | |
| Q012 | 8-729-100-66 | TRANSISTOR 2SC1623 | |
| Q013 | 8-729-100-66 | TRANSISTOR 2SC1623 | |
| Q014 | 8-729-100-66 | TRANSISTOR 2SC1623 | |
| Q015 | 8-729-100-66 | TRANSISTOR 2SC1623 | |
| Q016 | 8-729-100-66 | TRANSISTOR 2SC1623 | |
| Q017 | 8-729-100-66 | TRANSISTOR 2SC1623 | |
| Q018 | 8-729-100-66 | TRANSISTOR 2SC1623 | |
| Q019 | 8-729-100-66 | TRANSISTOR 2SC1623 | |
| Q020 | 8-729-100-66 | TRANSISTOR 2SC1623 | |
| Q021 | 8-729-100-66 | TRANSISTOR 2SC1623 | |
| Q022 | 8-729-100-66 | TRANSISTOR 2SC1623 | |
| Q023 | 8-729-320-17 | TRANSISTOR 2SA1122CD | |
| Q024 | 8-729-100-66 | TRANSISTOR 2SC1623 | |
| Q025 | 8-729-320-17 | TRANSISTOR 2SA1122CD | |
| Q026 | 8-729-320-17 | TRANSISTOR 2SA1122CD | |
| Q027 | 8-729-320-17 | TRANSISTOR 2SA1122CD | |
| Q028 | 8-729-320-17 | TRANSISTOR 2SA1122CD | |
| Q029 | 8-729-100-66 | TRANSISTOR 2SC1623 | |
| Q030 | 8-729-100-66 | TRANSISTOR 2SC1623 | |
| Q031 | 8-729-100-66 | TRANSISTOR 2SC1623 | |
| Q032 | 8-729-100-66 | TRANSISTOR 2SC1623 | |
| Q033 | 8-729-100-66 | TRANSISTOR 2SC1623 | |
| Q034 | 8-729-100-66 | TRANSISTOR 2SC1623 | |
| Q035 | 8-729-100-66 | TRANSISTOR 2SC1623 | |

| Ref. No. | Part No. | Description | Remark |
|---|---|---|---|
| Q036 | 8-729-320-17 | TRANSISTOR 2SA1122CD | |
| Q037 | 8-729-100-66 | TRANSISTOR 2SC1623 | |
| Q038 | 8-729-320-17 | TRANSISTOR 2SA1122CD | |
| Q039 | 8-729-100-66 | TRANSISTOR 2SC1623 | |
| Q040 | 8-729-100-66 | TRANSISTOR 2SC1623 | |
| Q041 | 8-729-100-66 | TRANSISTOR 2SC1623 | |
| Q042 | 8-729-100-66 | TRANSISTOR 2SC1623 | |
| Q043 | 8-729-320-17 | TRANSISTOR 2SA1122CD | |
| Q044 | 8-729-100-66 | TRANSISTOR 2SC1623 | |
| Q045 | 8-729-100-66 | TRANSISTOR 2SC1623 | |
| Q046 | 8-729-100-66 | TRANSISTOR 2SC1623 | |
| Q047 | 8-729-100-66 | TRANSISTOR 2SC1623 | |
| Q048 | 8-729-100-66 | TRANSISTOR 2SC1623 | |
| Q049 | 8-729-100-66 | TRANSISTOR 2SC1623 | |
| Q050 | 8-729-216-22 | TRANSISTOR 2SA1162 | |
| Q051 | 8-729-216-22 | TRANSISTOR 2SA1162 | |
| Q052 | 8-729-216-22 | TRANSISTOR 2SA1162 | |
| Q053 | 8-729-216-22 | TRANSISTOR 2SA1162 | |
| Q054 | 8-729-216-22 | TRANSISTOR 2SA1162 | |
| Q055 | 8-729-216-22 | TRANSISTOR 2SA1162 | |
| Q056 | 8-729-320-17 | TRANSISTOR 2SA1122CD | |
| Q057 | 8-729-320-17 | TRANSISTOR 2SA1122CD | |
| Q058 | 8-729-100-66 | TRANSISTOR 2SC1623 | |
| Q059 | 8-729-320-17 | TRANSISTOR 2SA1122CD | |
| Q060 | 8-729-216-22 | TRANSISTOR 2SA1162 | |

< RESISTOR >

| Ref. No. | Part No. | Description | Remark |
|---|---|---|---|
| R001 | 1-216-089-00 | METAL CHIP 47K 5% 1/10W | |
| R002 | 1-216-089-00 | METAL CHIP 47K 5% 1/10W | |
| R003 | 1-216-089-00 | METAL CHIP 47K 5% 1/10W | |
| R004 | 1-216-089-00 | METAL CHIP 47K 5% 1/10W | |
| R005 | 1-216-089-00 | METAL CHIP 47K 5% 1/10W | |
| R006 | 1-216-089-00 | METAL CHIP 47K 5% 1/10W | |
| R007 | 1-216-089-00 | METAL CHIP 47K 5% 1/10W | |
| R008 | 1-216-089-00 | METAL CHIP 47K 5% 1/10W | |
| R009 | 1-216-089-00 | METAL CHIP 47K 5% 1/10W | |
| R010 | 1-216-089-00 | METAL CHIP 47K 5% 1/10W | |
| R011 | 1-216-097-00 | METAL CHIP 100K 5% 1/10W | |
| R012 | 1-216-097-00 | METAL CHIP 100K 5% 1/10W | |
| R013 | 1-216-097-00 | METAL CHIP 100K 5% 1/10W | |
| R014 | 1-216-025-00 | METAL CHIP 100 5% 1/10W | |
| R015 | 1-216-025-00 | METAL CHIP 100 5% 1/10W | |
| R016 | 1-216-025-00 | METAL CHIP 100 5% 1/10W | |
| R017 | 1-216-073-00 | METAL CHIP 10K 5% 1/10W | |
| R018 | 1-216-025-00 | METAL CHIP 100 5% 1/10W | |
| R019 | 1-216-025-00 | METAL CHIP 100 5% 1/10W | |
| R020 | 1-216-073-00 | METAL CHIP 10K 5% 1/10W | |
| R021 | 1-216-025-00 | METAL CHIP 100 5% 1/10W | |
| R022 | 1-216-025-00 | METAL CHIP 100 5% 1/10W | |

# AN-2 (P)

| Ref. No. | Part No. | Description | | | | Remark |
|---|---|---|---|---|---|---|
| R023 | 1-216-025-00 | METAL CHIP | 100 | 5% | 1/10W | |
| R024 | 1-216-025-00 | METAL CHIP | 100 | 5% | 1/10W | |
| R025 | 1-216-073-00 | METAL CHIP | 10K | 5% | 1/10W | |
| R026 | 1-216-073-00 | METAL CHIP | 10K | 5% | 1/10W | |
| R027 | 1-216-295-00 | METAL CHIP | 0 | 5% | 1/10W | |
| R028 | 1-216-073-00 | METAL CHIP | 10K | 5% | 1/10W | |
| R029 | 1-216-025-00 | METAL CHIP | 100 | 5% | 1/10W | |
| R030 | 1-216-025-00 | METAL CHIP | 100 | 5% | 1/10W | |
| R031 | 1-216-073-00 | METAL CHIP | 10K | 5% | 1/10W | |
| R032 | 1-216-025-00 | METAL CHIP | 100 | 5% | 1/10W | |
| R033 | 1-216-025-00 | METAL CHIP | 100 | 5% | 1/10W | |
| R034 | 1-216-073-00 | METAL CHIP | 10K | 5% | 1/10W | |
| R035 | 1-216-025-00 | METAL CHIP | 100 | 5% | 1/10W | |
| R036 | 1-216-025-00 | METAL CHIP | 100 | 5% | 1/10W | |
| R037 | 1-216-073-00 | METAL CHIP | 10K | 5% | 1/10W | |
| R038 | 1-216-073-00 | METAL CHIP | 10K | 5% | 1/10W | |
| R039 | 1-216-025-00 | METAL CHIP | 100 | 5% | 1/10W | |
| R040 | 1-216-049-00 | METAL CHIP | 1K | 5% | 1/10W | |
| R041 | 1-216-049-00 | METAL CHIP | 1K | 5% | 1/10W | |
| R042 | 1-216-117-00 | METAL CHIP | 680K | 5% | 1/10W | |
| R043 | 1-216-073-00 | METAL CHIP | 10K | 5% | 1/10W | |
| R047 | 1-216-097-00 | METAL CHIP | 100K | 5% | 1/10W | |
| R048 | 1-216-097-00 | METAL CHIP | 100K | 5% | 1/10W | |
| R049 | 1-216-097-00 | METAL CHIP | 100K | 5% | 1/10W | |
| R050 | 1-216-097-00 | METAL CHIP | 100K | 5% | 1/10W | |
| R051 | 1-216-097-00 | METAL CHIP | 100K | 5% | 1/10W | |
| R052 | 1-216-025-00 | METAL CHIP | 100 | 5% | 1/10W | |
| R053 | 1-216-037-00 | METAL CHIP | 330 | 5% | 1/10W | |
| R054 | 1-216-035-00 | METAL CHIP | 270 | 5% | 1/10W | |
| R055 | 1-216-073-00 | METAL CHIP | 10K | 5% | 1/10W | |
| R056 | 1-216-073-00 | METAL CHIP | 10K | 5% | 1/10W | |
| R057 | 1-216-035-00 | METAL CHIP | 270 | 5% | 1/10W | |
| R058 | 1-216-025-00 | METAL CHIP | 100 | 5% | 1/10W | |
| R059 | 1-216-033-00 | METAL CHIP | 220 | 5% | 1/10W | |
| R060 | 1-216-025-00 | METAL CHIP | 100 | 5% | 1/10W | |
| R061 | 1-216-025-00 | METAL CHIP | 100 | 5% | 1/10W | |
| R062 | 1-216-035-00 | METAL CHIP | 270 | 5% | 1/10W | |
| R063 | 1-216-073-00 | METAL CHIP | 10K | 5% | 1/10W | |
| R064 | 1-216-073-00 | METAL CHIP | 10K | 5% | 1/10W | |
| R065 | 1-216-037-00 | METAL CHIP | 330 | 5% | 1/10W | |
| R066 | 1-216-295-00 | METAL CHIP | 0 | 5% | 1/10W | |
| R067 | 1-216-073-00 | METAL CHIP | 10K | 5% | 1/10W | |
| R068 | 1-216-073-00 | METAL CHIP | 10K | 5% | 1/10W | |
| R069 | 1-216-035-00 | METAL CHIP | 270 | 5% | 1/10W | |
| R070 | 1-216-025-00 | METAL CHIP | 100 | 5% | 1/10W | |
| R071 | 1-216-037-00 | METAL CHIP | 330 | 5% | 1/10W | |
| R072 | 1-216-073-00 | METAL CHIP | 10K | 5% | 1/10W | |
| R073 | 1-216-073-00 | METAL CHIP | 10K | 5% | 1/10W | |

| Ref. No. | Part No. | Description | | | | Remark |
|---|---|---|---|---|---|---|
| R074 | 1-216-022-00 | METAL CHIP | 75 | 5% | 1/10W | |
| R075 | 1-216-025-00 | METAL CHIP | 100 | 5% | 1/10W | |
| R076 | 1-216-025-00 | METAL CHIP | 100 | 5% | 1/10W | |
| R077 | 1-216-033-00 | METAL CHIP | 220 | 5% | 1/10W | |
| R078 | 1-216-073-00 | METAL CHIP | 10K | 5% | 1/10W | |
| R079 | 1-216-073-00 | METAL CHIP | 10K | 5% | 1/10W | |
| R080 | 1-216-037-00 | METAL CHIP | 330 | 5% | 1/10W | |
| R081 | 1-216-073-00 | METAL CHIP | 10K | 5% | 1/10W | |
| R082 | 1-216-073-00 | METAL CHIP | 10K | 5% | 1/10W | |
| R083 | 1-216-037-00 | METAL CHIP | 330 | 5% | 1/10W | |
| R084 | 1-216-073-00 | METAL CHIP | 10K | 5% | 1/10W | |
| R085 | 1-216-085-00 | METAL CHIP | 33K | 5% | 1/10W | |
| R086 | 1-216-079-00 | METAL CHIP | 18K | 5% | 1/10W | |
| R088 | 1-216-059-00 | METAL CHIP | 2.7K | 5% | 1/10W | |
| R089 | 1-216-061-00 | METAL CHIP | 3.3K | 5% | 1/10W | |
| R091 | 1-216-059-00 | METAL CHIP | 2.7K | 5% | 1/10W | |
| R092 | 1-216-085-00 | METAL CHIP | 33K | 5% | 1/10W | |
| R093 | 1-216-079-00 | METAL CHIP | 18K | 5% | 1/10W | |
| R095 | 1-216-059-00 | METAL CHIP | 2.7K | 5% | 1/10W | |
| R096 | 1-216-061-00 | METAL CHIP | 3.3K | 5% | 1/10W | |
| R098 | 1-216-059-00 | METAL CHIP | 2.7K | 5% | 1/10W | |
| R099 | 1-216-061-00 | METAL CHIP | 3.3K | 5% | 1/10W | |
| R100 | 1-216-022-00 | METAL CHIP | 75 | 5% | 1/10W | |
| R101 | 1-216-022-00 | METAL CHIP | 75 | 5% | 1/10W | |
| R102 | 1-216-022-00 | METAL CHIP | 75 | 5% | 1/10W | |
| R103 | 1-216-022-00 | METAL CHIP | 75 | 5% | 1/10W | |
| R104 | 1-216-022-00 | METAL CHIP | 75 | 5% | 1/10W | |
| R105 | 1-216-022-00 | METAL CHIP | 75 | 5% | 1/10W | |
| R106 | 1-216-097-00 | METAL CHIP | 100K | 5% | 1/10W | |
| R107 | 1-216-097-00 | METAL CHIP | 100K | 5% | 1/10W | |
| R108 | 1-216-025-00 | METAL CHIP | 100 | 5% | 1/10W | |
| R109 | 1-216-082-00 | METAL GLAZE | 24K | 5% | 1/10W | |
| R110 | 1-216-083-00 | METAL CHIP | 27K | 5% | 1/10W | |
| R111 | 1-216-083-00 | METAL CHIP | 27K | 5% | 1/10W | |
| R112 | 1-216-080-00 | METAL CHIP | 20K | 5% | 1/10W | |
| R113 | 1-216-067-00 | METAL CHIP | 5.6K | 5% | 1/10W | |
| R114 | 1-216-067-00 | METAL CHIP | 5.6K | 5% | 1/10W | |
| R115 | 1-216-105-00 | METAL CHIP | 220K | 5% | 1/10W | |
| R116 | 1-216-105-00 | METAL CHIP | 220K | 5% | 1/10W | |
| R117 | 1-216-039-00 | METAL CHIP | 390 | 5% | 1/10W | |
| R118 | 1-216-053-00 | METAL CHIP | 1.5K | 5% | 1/10W | |
| R119 | 1-216-073-00 | METAL CHIP | 10K | 5% | 1/10W | |
| R120 | 1-216-099-00 | METAL CHIP | 120K | 5% | 1/10W | |
| R121 | 1-216-073-00 | METAL CHIP | 10K | 5% | 1/10W | |
| R122 | 1-216-073-00 | METAL CHIP | 10K | 5% | 1/10W | |
| R123 | 1-216-085-00 | METAL CHIP | 33K | 5% | 1/10W | |
| R124 | 1-216-039-00 | METAL CHIP | 390 | 5% | 1/10W | |
| R125 | 1-216-053-00 | METAL CHIP | 1.5K | 5% | 1/10W | |
| R126 | 1-216-073-00 | METAL CHIP | 10K | 5% | 1/10W | |

| Ref. No. | Part No. | Description | | | | Remark |
|---|---|---|---|---|---|---|
| R127 | 1-216-099-00 | METAL CHIP | 120K | 5% | 1/10W | |
| R128 | 1-216-073-00 | METAL CHIP | 10K | 5% | 1/10W | |
| R129 | 1-216-073-00 | METAL CHIP | 10K | 5% | 1/10W | |
| R130 | 1-216-085-00 | METAL CHIP | 33K | 5% | 1/10W | |
| R131 | 1-216-067-00 | METAL CHIP | 5.6K | 5% | 1/10W | |
| R132 | 1-216-077-00 | METAL CHIP | 15K | 5% | 1/10W | |
| R133 | 1-216-748-11 | METAL CHIP | 39K | 5% | 1/10W | |
| R134 | 1-216-037-00 | METAL CHIP | 330 | 5% | 1/10W | |
| R135 | 1-216-041-00 | METAL CHIP | 470 | 5% | 1/10W | |
| R136 | 1-216-295-00 | METAL CHIP | 0 | 5% | 1/10W | |
| R137 | 1-216-049-00 | METAL CHIP | 1K | 5% | 1/10W | |
| R138 | 1-216-748-11 | METAL CHIP | 39K | 5% | 1/10W | |
| R139 | 1-216-077-00 | METAL CHIP | 15K | 5% | 1/10W | |
| R140 | 1-216-071-00 | METAL CHIP | 8.2K | 5% | 1/10W | |
| R141 | 1-216-071-00 | METAL CHIP | 8.2K | 5% | 1/10W | |
| R142 | 1-216-089-00 | METAL CHIP | 47K | 5% | 1/10W | |
| R143 | 1-216-077-00 | METAL CHIP | 15K | 5% | 1/10W | |
| R144 | 1-216-748-11 | METAL CHIP | 39K | 5% | 1/10W | |
| R145 | 1-216-049-00 | METAL CHIP | 1K | 5% | 1/10W | |
| R146 | 1-216-077-00 | METAL CHIP | 15K | 5% | 1/10W | |
| R147 | 1-216-748-11 | METAL CHIP | 39K | 5% | 1/10W | |
| R148 | 1-216-037-00 | METAL CHIP | 330 | 5% | 1/10W | |
| R149 | 1-216-041-00 | METAL CHIP | 470 | 5% | 1/10W | |
| R150 | 1-216-295-00 | METAL CHIP | 0 | 5% | 1/10W | |
| R151 | 1-216-071-00 | METAL CHIP | 8.2K | 5% | 1/10W | |
| R152 | 1-216-071-00 | METAL CHIP | 8.2K | 5% | 1/10W | |
| R153 | 1-216-089-00 | METAL CHIP | 47K | 5% | 1/10W | |
| R154 | 1-216-748-11 | METAL CHIP | 39K | 5% | 1/10W | |
| R155 | 1-216-077-00 | METAL CHIP | 15K | 5% | 1/10W | |
| R156 | 1-216-049-00 | METAL CHIP | 1K | 5% | 1/10W | |
| R157 | 1-216-025-00 | METAL CHIP | 100 | 5% | 1/10W | |
| R158 | 1-216-049-00 | METAL CHIP | 1K | 5% | 1/10W | |
| R159 | 1-216-073-00 | METAL CHIP | 10K | 5% | 1/10W | |
| R160 | 1-216-073-00 | METAL CHIP | 10K | 5% | 1/10W | |
| R161 | 1-216-025-00 | METAL CHIP | 100 | 5% | 1/10W | |
| R162 | 1-216-049-00 | METAL CHIP | 1K | 5% | 1/10W | |
| R163 | 1-216-073-00 | METAL CHIP | 10K | 5% | 1/10W | |
| R164 | 1-216-041-00 | METAL CHIP | 470 | 5% | 1/10W | |
| R165 | 1-216-041-00 | METAL CHIP | 470 | 5% | 1/10W | |
| R166 | 1-216-025-00 | METAL CHIP | 100 | 5% | 1/10W | |
| R167 | 1-216-025-00 | METAL CHIP | 100 | 5% | 1/10W | |
| R168 | 1-216-073-00 | METAL CHIP | 10K | 5% | 1/10W | |
| R169 | 1-216-073-00 | METAL CHIP | 10K | 5% | 1/10W | |
| R170 | 1-216-025-00 | METAL CHIP | 100 | 5% | 1/10W | |
| R171 | 1-216-039-00 | METAL CHIP | 390 | 5% | 1/10W | |
| R172 | 1-216-049-00 | METAL CHIP | 1K | 5% | 1/10W | |
| R173 | 1-216-025-00 | METAL CHIP | 100 | 5% | 1/10W | |
| R174 | 1-216-049-00 | METAL CHIP | 1K | 5% | 1/10W | |
| R175 | 1-216-025-00 | METAL CHIP | 100 | 5% | 1/10W | |
| R176 | 1-216-073-00 | METAL CHIP | 10K | 5% | 1/10W | |
| R177 | 1-216-073-00 | METAL CHIP | 10K | 5% | 1/10W | |
| R178 | 1-216-085-00 | METAL CHIP | 33K | 5% | 1/10W | |
| R179 | 1-216-085-00 | METAL CHIP | 33K | 5% | 1/10W | |
| R180 | 1-216-049-00 | METAL CHIP | 1K | 5% | 1/10W | |
| R181 | 1-216-037-00 | METAL CHIP | 330 | 5% | 1/10W | |
| R182 | 1-216-036-00 | METAL CHIP | 300 | 5% | 1/10W | |
| R183 | 1-216-045-00 | METAL CHIP | 680 | 5% | 1/10W | |
| R184 | 1-216-075-00 | METAL CHIP | 12K | 5% | 1/10W | |
| R185 | 1-216-081-00 | METAL CHIP | 22K | 5% | 1/10W | |
| R186 | 1-216-295-00 | METAL CHIP | 0 | 5% | 1/10W | |
| R187 | 1-216-049-00 | METAL CHIP | 1K | 5% | 1/10W | |
| R188 | 1-216-033-00 | METAL CHIP | 220 | 5% | 1/10W | |
| R189 | 1-216-049-00 | METAL CHIP | 1K | 5% | 1/10W | |
| R190 | 1-216-043-00 | METAL CHIP | 560 | 5% | 1/10W | |
| R191 | 1-216-075-00 | METAL CHIP | 12K | 5% | 1/10W | |
| R192 | 1-216-081-00 | METAL CHIP | 22K | 5% | 1/10W | |
| R193 | 1-216-049-00 | METAL CHIP | 1K | 5% | 1/10W | |
| R195 | 1-216-049-00 | METAL CHIP | 1K | 5% | 1/10W | |
| R196 | 1-216-033-00 | METAL CHIP | 220 | 5% | 1/10W | |
| R197 | 1-216-043-00 | METAL CHIP | 560 | 5% | 1/10W | |
| R198 | 1-216-035-00 | METAL CHIP | 270 | 5% | 1/10W | |
| R199 | 1-216-039-00 | METAL CHIP | 390 | 5% | 1/10W | |
| R200 | 1-216-017-00 | METAL CHIP | 47 | 5% | 1/10W | |
| R201 | 1-216-037-00 | METAL CHIP | 330 | 5% | 1/10W | |
| R202 | 1-216-043-00 | METAL CHIP | 560 | 5% | 1/10W | |
| R203 | 1-216-045-00 | METAL CHIP | 680 | 5% | 1/10W | |
| R204 | 1-216-073-00 | METAL CHIP | 10K | 5% | 1/10W | |
| R205 | 1-216-073-00 | METAL CHIP | 10K | 5% | 1/10W | |
| R206 | 1-216-077-00 | METAL CHIP | 15K | 5% | 1/10W | |
| R207 | 1-216-049-00 | METAL CHIP | 1K | 5% | 1/10W | |
| R208 | 1-216-075-00 | METAL CHIP | 12K | 5% | 1/10W | |
| R209 | 1-216-081-00 | METAL CHIP | 22K | 5% | 1/10W | |
| R210 | 1-216-049-00 | METAL CHIP | 1K | 5% | 1/10W | |
| R211 | 1-216-033-00 | METAL CHIP | 220 | 5% | 1/10W | |
| R212 | 1-216-043-00 | METAL CHIP | 560 | 5% | 1/10W | |
| R213 | 1-216-049-00 | METAL CHIP | 1K | 5% | 1/10W | |
| R214 | 1-216-075-00 | METAL CHIP | 12K | 5% | 1/10W | |
| R215 | 1-216-081-00 | METAL CHIP | 22K | 5% | 1/10W | |
| R216 | 1-216-049-00 | METAL CHIP | 1K | 5% | 1/10W | |
| R217 | 1-216-025-00 | METAL CHIP | 100 | 5% | 1/10W | |
| R219 | 1-216-295-00 | METAL CHIP | 0 | 5% | 1/10W | |
| R220 | 1-216-748-11 | METAL CHIP | 39K | 5% | 1/10W | |
| R221 | 1-216-077-00 | METAL CHIP | 15K | 5% | 1/10W | |
| R223 | 1-216-748-11 | METAL CHIP | 39K | 5% | 1/10W | |
| R224 | 1-216-077-00 | METAL CHIP | 15K | 5% | 1/10W | |
| R226 | 1-216-748-11 | METAL CHIP | 39K | 5% | 1/10W | |
| R227 | 1-216-077-00 | METAL CHIP | 15K | 5% | 1/10W | |

| Ref. No. | Part No. | Description | Remark |
|---|---|---|---|
| R229 | 1-216-748-11 | METAL CHIP 39K 5% 1/10W | |
| R230 | 1-216-077-00 | METAL CHIP 15K 5% 1/10W | |
| R232 | 1-216-022-00 | METAL CHIP 75 5% 1/10W | |
| R233 | 1-216-022-00 | METAL CHIP 75 5% 1/10W | |
| R234 | 1-216-022-00 | METAL CHIP 75 5% 1/10W | |
| R235 | 1-216-022-00 | METAL CHIP 75 5% 1/10W | |
| R236 | 1-216-022-00 | METAL CHIP 75 5% 1/10W | |
| R237 | 1-216-097-00 | METAL CHIP 100K 5% 1/10W | |
| R240 | 1-216-295-00 | METAL CHIP 0 5% 1/10W | |
| R241 | 1-216-295-00 | METAL CHIP 0 5% 1/10W | |
| R243 | 1-216-067-00 | METAL CHIP 5.6K 5% 1/10W | |
| R244 | 1-216-025-00 | METAL CHIP 100 5% 1/10W | |
| R245 | 1-216-025-00 | METAL CHIP 100 5% 1/10W | |
| R246 | 1-216-073-00 | METAL CHIP 10K 5% 1/10W | |
| R247 | 1-216-061-00 | METAL CHIP 3.3K 5% 1/10W | |
| R248 | 1-216-073-00 | METAL CHIP 10K 5% 1/10W | |
| R249 | 1-216-073-00 | METAL CHIP 10K 5% 1/10W | |
| R250 | 1-216-041-00 | METAL CHIP 470 5% 1/10W | |
| R251 | 1-216-049-00 | METAL CHIP 1K 5% 1/10W | |
| R252 | 1-216-049-00 | METAL CHIP 1K 5% 1/10W | |
| R253 | 1-216-049-00 | METAL CHIP 1K 5% 1/10W | |
| R254 | 1-216-049-00 | METAL CHIP 1K 5% 1/10W | |
| R255 | 1-216-049-00 | METAL CHIP 1K 5% 1/10W | |
| R256 | 1-216-049-00 | METAL CHIP 1K 5% 1/10W | |
| R257 | 1-216-049-00 | METAL CHIP 1K 5% 1/10W | |
| R258 | 1-216-049-00 | METAL CHIP 1K 5% 1/10W | |
| R259 | 1-216-049-00 | METAL CHIP 1K 5% 1/10W | |
| R260 | 1-216-049-00 | METAL CHIP 1K 5% 1/10W | |
| R261 | 1-216-049-00 | METAL CHIP 1K 5% 1/10W | |
| R262 | 1-216-049-00 | METAL CHIP 1K 5% 1/10W | |
| R263 | 1-216-049-00 | METAL CHIP 1K 5% 1/10W | |
| R264 | 1-216-049-00 | METAL CHIP 1K 5% 1/10W | |
| R265 | 1-216-071-00 | METAL CHIP 8.2K 5% 1/10W | |
| R266 | 1-216-085-00 | METAL CHIP 33K 5% 1/10W | |
| R267 | 1-216-085-00 | METAL CHIP 33K 5% 1/10W | |

< VARIABLE RESISTOR >

| Ref. No. | Part No. | Description | Remark |
|---|---|---|---|
| RV001 | 1-230-526-11 | RES, ADJ, METAL 47K | |
| RV002 | 1-230-519-11 | RES, ADJ, METAL 470 | |
| RV003 | 1-230-519-11 | RES, ADJ, METAL 470 | |
| RV004 | 1-230-519-11 | RES, ADJ, METAL 470 | |

< VIBRATOR >

| Ref. No. | Part No. | Description | Remark |
|---|---|---|---|
| X003 | 1-567-344-21 | VIBRATOR, CRYSTAL (VCO) | |
| X004 | 1-567-344-21 | VIBRATOR, CRYSTAL (VCO) | |

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* 1-635-324-11 CC-34 BOARD (Ref. No 18,000 Series)

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| Ref. No. | Part No. | Description | Remark |
|---|---|---|---|
| | 3-697-998-01 | PLATE, GROUND | |

< COMPOSITION CIRCUIT BLOCK >

| Ref. No. | Part No. | Description | Remark |
|---|---|---|---|
| CP601 | 1-232-128-11 | COMPOSITION CIRCUIT BLOCK | |

< DIODE >

| Ref. No. | Part No. | Description | Remark |
|---|---|---|---|
| D601 | 8-719-106-80 | DIODE RD13M | |
| D602 | 8-719-106-80 | DIODE RD13M | |

< JACK >

| Ref. No. | Part No. | Description | Remark |
|---|---|---|---|
| J602 | 1-566-770-11 | SOCKET, CONNECTOR 8P (CONTROLLER IN) | |

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* 1-635-321-11 CO-5 BOARD (Ref. No 15,000 Series)

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< CAPACITOR >

| Ref. No. | Part No. | Description | Remark |
|---|---|---|---|
| C201 | 1-163-035-00 | CERAMIC CHIP 0.047uF 50V | |
| C202 | 1-126-603-11 | ELECT CHIP 4.7uF 20% 35V | |
| C203 | 1-163-038-00 | CERAMIC CHIP 0.1uF 25V | |
| C204 | 1-163-038-00 | CERAMIC CHIP 0.1uF 25V | |

< DIODE >

| Ref. No. | Part No. | Description | Remark |
|---|---|---|---|
| D201 | 8-719-800-76 | DIODE 1SS226 | |

< TRANSISTOR >

| Ref. No. | Part No. | Description | Remark |
|---|---|---|---|
| Q201 | 8-729-901-01 | TRANSISTOR DTC144EK | |
| Q202 | 8-729-901-01 | TRANSISTOR DTC144EK | |

< RESISTOR >

| Ref. No. | Part No. | Description | Remark |
|---|---|---|---|
| R201 | 1-216-049-00 | METAL CHIP 1K 5% 1/10W | |
| R202 | 1-216-049-00 | METAL CHIP 1K 5% 1/10W | |

< VARIABLE RESISTOR >

| Ref. No. | Part No. | Description | Remark |
|---|---|---|---|
| RV201 | 1-230-661-11 | RES, VAR, CARBON 10K | |
| RV202 | 1-230-661-11 | RES, VAR, CARBON 10K | |

< SWITCH >

| Ref. No. | Part No. | Description | Remark |
|---|---|---|---|
| S201 | 1-570-157-11 | SWITCH, SLIDE (DATA SCREEN) | |
| S202 | 1-570-157-11 | SWITCH, SLIDE (MODE SELECT) | |

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| Ref. No. | Part No. | Description | Remark |
|---|---|---|---|
| | * 1-635-322-11 | CO-6 BOARD (Ref. No 1,600 Series)<br>*********** | |
| | | < DIODE > | |
| D501 | 8-719-106-09 | DIODE RD6.2M-T1B3 | |
| | | < JACK > | |
| J501 | 1-507-980-21 | JACK (PAUSE OUT) | |

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| Ref. No. | Part No. | Description | Remark |
|---|---|---|---|
| | * A-7062-219-A | FB-170 BOARD, COMPLETE<br>**********************<br>(Ref. No 18,000 Series) | |
| | * 3-689-521-01 | HOLDER, LED, ROUND | |
| | * 3-697-607-01 | HOLDER (SU), LED | |
| | * 3-747-015-01 | HOLDER, FUNCTION LED | |
| | * 3-747-017-01 | HOLDER, J/S LED | |
| | * 3-747-018-01 | HOLDER, MODE LED | |
| | * 3-747-049-01 | HOLDER, LEVEL METER | |
| | | < BUZZER > | |
| BZ001 | 1-529-016-00 | BUZZER, PIEZOELECTRIC | |
| | | < CAPACITOR > | |
| C001 | 1-124-472-11 | ELECT 470uF 20% | 10V |
| C002 | 1-163-035-00 | CERAMIC CHIP 0.047uF | 50V |
| C003 | 1-163-035-00 | CERAMIC CHIP 0.047uF | 50V |
| C004 | 1-163-035-00 | CERAMIC CHIP 0.047uF | 50V |
| C005 | 1-124-472-11 | ELECT 470uF 20% | 10V |
| C006 | 1-163-035-00 | CERAMIC CHIP 0.047uF | 50V |
| C007 | 1-126-603-11 | ELECT CHIP 4.7uF 20% | 35V |

## FB-170

| Ref. No. | Part No. | Description | | | Remark |
|---|---|---|---|---|---|
| C008 | 1-126-603-11 | ELECT CHIP | 4.7uF | 20% | 35V |
| C009 | 1-163-035-00 | CERAMIC CHIP | 0.047uF | | 50V |
| C010 | 1-163-035-00 | CERAMIC CHIP | 0.047uF | | 50V |
| C011 | 1-135-201-11 | TANTALUM CHIP | 10uF | 20% | 4V |
| C012 | 1-135-201-11 | TANTALUM CHIP | 10uF | 20% | 4V |
| C014 | 1-163-035-00 | CERAMIC CHIP | 0.047uF | | 50V |
| C015 | 1-164-232-11 | CERAMIC CHIP | 0.01uF | | 50V |
| C016 | 1-163-035-00 | CERAMIC CHIP | 0.047uF | | 50V |
| C017 | 1-163-035-00 | CERAMIC CHIP | 0.047uF | | 50V |
| C018 | 1-126-603-11 | ELECT CHIP | 4.7uF | 20% | 35V |
| C019 | 1-126-603-11 | ELECT CHIP | 4.7uF | 20% | 35V |
| C020 | 1-163-035-00 | CERAMIC CHIP | 0.047uF | | 50V |
| C022 | 1-164-232-11 | CERAMIC CHIP | 0.01uF | | 50V |
| C023 | 1-164-232-11 | CERAMIC CHIP | 0.01uF | | 50V |
| C024 | 1-164-232-11 | CERAMIC CHIP | 0.01uF | | 50V |
| C025 | 1-164-232-11 | CERAMIC CHIP | 0.01uF | | 50V |
| C026 | 1-164-232-11 | CERAMIC CHIP | 0.01uF | | 50V |
| C027 | 1-164-232-11 | CERAMIC CHIP | 0.01uF | | 50V |
| C028 | 1-164-232-11 | CERAMIC CHIP | 0.01uF | | 50V |
| C029 | 1-164-232-11 | CERAMIC CHIP | 0.01uF | | 50V |
| C030 | 1-164-232-11 | CERAMIC CHIP | 0.01uF | | 50V |
| C031 | 1-164-232-11 | CERAMIC CHIP | 0.01uF | | 50V |
| C032 | 1-164-232-11 | CERAMIC CHIP | 0.01uF | | 50V |
| | | < CONNECTOR > | | | |
| CN005 | 1-506-470-11 | CONNECTOR 5P, MALE | | | |
| CN006 | 1-506-469-11 | CONNECTOR 4P, MALE | | | |
| CN008 | 1-506-472-11 | CONNECTOR 7P, MALE | | | |
| CN009 | 1-506-469-11 | CONNECTOR 4P, MALE | | | |
| | | < DIODE > | | | |
| D002 | 8-719-800-76 | DIODE | 1SS226 | | |
| D003 | 8-719-800-76 | DIODE | 1SS226 | | |
| D004 | 8-719-800-76 | DIODE | 1SS226 | | |
| D005 | 8-719-939-36 | DIODE | GL5HY42 | (Hi 8) | |
| D007 | 8-719-939-37 | DIODE | GL5EG42 | (PCM) | |
| D008 | 8-719-939-36 | DIODE | GL5HY42 | (σo) | |
| D010 | 8-719-939-36 | DIODE | GL5HY42 | (SP) | |
| D012 | 8-719-812-32 | DIODE | TLY123 | (EJECT ⏏) | |
| D013 | 8-719-939-36 | DIODE | GL5HY42 | (JOG/S) | |
| D014 | 8-719-939-36 | DIODE | GL5HY42 | (JOG/S) | |
| D015 | 8-719-918-76 | DIODE | SLR-34VR3 | (REC ●) | |
| D016 | 8-719-812-32 | DIODE | TLY123 | (PAUSE ❚❚) | |
| D017 | 8-719-812-32 | DIODE | TLY123 | (FF ▶▶) | |
| D018 | 8-719-920-05 | DIODE | TLG123A | (PB ▶) | |
| D019 | 8-719-812-32 | DIODE | TLY123 | (REW ◀◀) | |
| D026 | 8-719-812-32 | DIODE | TLY123 | (STRAIGHT) | |
| D027 | 8-719-812-32 | DIODE | TLY123 | (PCM) | |
| D028 | 8-719-812-32 | DIODE | TLY123 | (MIX) | |

| Ref. No. | Part No. | Description | | | Remark |
|---|---|---|---|---|---|
| D029 | 8-719-812-32 | DIODE | TLY123 | (STD) | |
| D030 | 8-719-812-32 | DIODE | TLY123 | (LOAD) | |
| D031 | 8-719-812-31 | DIODE | TLR123 | (SAVE) | |
| D032 | 8-719-800-76 | DIODE | 1SS226 | | |
| D033 | 8-719-800-76 | DIODE | 1SS226 | | |
| D034 | 8-719-800-76 | DIODE | 1SS226 | | |
| D035 | 8-719-800-76 | DIODE | 1SS226 | | |
| D042 | 8-719-800-76 | DIODE | 1SS226 | | |
| D043 | 8-719-800-76 | DIODE | 1SS226 | | |
| D044 | 8-719-800-76 | DIODE | 1SS226 | | |
| D045 | 8-719-800-76 | DIODE | 1SS226 | | |
| | | < IC > | | | |
| IC001 | 8-759-937-21 | IC | CXD1078M | | |
| IC002 | 8-759-927-46 | IC | uPD74HC00G | | |
| | | < COIL > | | | |
| L001 | 1-410-393-11 | INDUCTOR CHIP | 100uH | | |
| L002 | 1-408-979-21 | INDUCTOR | 56uH | | |
| L003 | 1-410-671-31 | INDUCTOR | 47uH | | |
| L004 | 1-410-671-31 | INDUCTOR | 47uH | | |
| L005 | 1-410-671-31 | INDUCTOR | 47uH | | |
| | | < METER UNIT > | | | |
| LMU001 | 1-520-503-11 | METER UNIT, LED LEVEL | | | |
| | | < TRANSISTOR > | | | |
| Q002 | 8-729-901-06 | TRANSISTOR | DTA144EK | | |
| Q003 | 8-729-901-06 | TRANSISTOR | DTA144EK | | |
| Q004 | 8-729-901-06 | TRANSISTOR | DTA144EK | | |
| Q005 | 8-729-901-06 | TRANSISTOR | DTA144EK | | |
| Q006 | 8-729-901-06 | TRANSISTOR | DTA144EK | | |
| Q007 | 8-729-901-06 | TRANSISTOR | DTA144EK | | |
| Q009 | 8-729-901-01 | TRANSISTOR | DTC144EK | | |
| Q010 | 8-729-901-01 | TRANSISTOR | DTC144EK | | |
| Q011 | 8-729-100-66 | TRANSISTOR | 2SC1623 | | |
| Q012 | 8-729-100-66 | TRANSISTOR | 2SC1623 | | |
| | | < RESISTOR > | | | |
| R005 | 1-216-099-00 | METAL CHIP | 120K | 5% | 1/10W |
| R006 | 1-216-089-00 | METAL CHIP | 47K | 5% | 1/10W |
| R007 | 1-216-081-00 | METAL CHIP | 22K | 5% | 1/10W |
| R008 | 1-216-072-00 | METAL CHIP | 9.1K | 5% | 1/10W |
| R009 | 1-216-089-00 | METAL CHIP | 47K | 5% | 1/10W |
| R010 | 1-216-081-00 | METAL CHIP | 22K | 5% | 1/10W |
| R011 | 1-216-072-00 | METAL CHIP | 9.1K | 5% | 1/10W |
| R012 | 1-216-037-00 | METAL CHIP | 330 | 5% | 1/10W |
| R014 | 1-216-037-00 | METAL CHIP | 330 | 5% | 1/10W |
| R015 | 1-216-037-00 | METAL CHIP | 330 | 5% | 1/10W |

| Ref. No. | Part No. | Description | Remark |
|---|---|---|---|
| R017 | 1-216-037-00 | METAL CHIP 330 5% 1/10W | |
| R019 | 1-216-037-00 | METAL CHIP 330 5% 1/10W | |
| R020 | 1-216-025-00 | METAL CHIP 100 5% 1/10W | |
| R021 | 1-216-049-00 | METAL CHIP 1K 5% 1/10W | |
| R022 | 1-216-037-00 | METAL CHIP 330 5% 1/10W | |
| R023 | 1-216-037-00 | METAL CHIP 330 5% 1/10W | |
| R024 | 1-216-037-00 | METAL CHIP 330 5% 1/10W | |
| R025 | 1-216-037-00 | METAL CHIP 330 5% 1/10W | |
| R031 | 1-216-037-00 | METAL CHIP 330 5% 1/10W | |
| R032 | 1-216-037-00 | METAL CHIP 330 5% 1/10W | |
| R033 | 1-216-089-00 | METAL CHIP 47K 5% 1/10W | |
| R034 | 1-216-081-00 | METAL CHIP 22K 5% 1/10W | |
| R035 | 1-216-073-00 | METAL CHIP 10K 5% 1/10W | |
| R039 | 1-216-073-00 | METAL CHIP 10K 5% 1/10W | |
| R040 | 1-216-081-00 | METAL CHIP 22K 5% 1/10W | |
| R041 | 1-216-089-00 | METAL CHIP 47K 5% 1/10W | |
| R042 | 1-216-073-00 | METAL CHIP 10K 5% 1/10W | |
| R043 | 1-216-081-00 | METAL CHIP 22K 5% 1/10W | |
| R044 | 1-216-089-00 | METAL CHIP 47K 5% 1/10W | |
| R046 | 1-216-081-00 | METAL CHIP 22K 5% 1/10W | |
| R047 | 1-216-089-00 | METAL CHIP 47K 5% 1/10W | |
| R048 | 1-216-073-00 | METAL CHIP 10K 5% 1/10W | |
| R049 | 1-216-081-00 | METAL CHIP 22K 5% 1/10W | |
| R050 | 1-216-089-00 | METAL CHIP 47K 5% 1/10W | |
| R051 | 1-216-073-00 | METAL CHIP 10K 5% 1/10W | |
| R052 | 1-216-073-00 | METAL CHIP 10K 5% 1/10W | |
| R053 | 1-216-037-00 | METAL CHIP 330 5% 1/10W | |
| R054 | 1-216-037-00 | METAL CHIP 330 5% 1/10W | |
| R055 | 1-216-037-00 | METAL CHIP 330 5% 1/10W | |
| R056 | 1-216-037-00 | METAL CHIP 330 5% 1/10W | |
| R057 | 1-216-081-00 | METAL CHIP 22K 5% 1/10W | |
| R058 | 1-216-029-00 | METAL CHIP 150 5% 1/10W | |
| R059 | 1-216-097-00 | METAL CHIP 100K 5% 1/10W | |
| R060 | 1-216-057-00 | METAL CHIP 2.2K 5% 1/10W | |

< VARIABLE RESISTOR >

| Ref. No. | Part No. | Description | Remark |
|---|---|---|---|
| RV003 | 1-230-874-11 | RES, ADJ, METAL100K | |
| RV004 | 1-230-122-00 | RES, VAR, CARBON 100K (SLOW ADJ) | |

< SWITCH >

| Ref. No. | Part No. | Description | Remark |
|---|---|---|---|
| S002 | 1-571-787-11 | SWITCH, TACTILE (REW◀◀) | |
| S003 | 1-571-787-11 | SWITCH, TACTILE (PAUSE ▮▮) | |
| S004 | 1-571-787-11 | SWITCH, TACTILE (PB ▶) | |
| S005 | 1-571-787-11 | SWITCH, TACTILE (EJECT ⏏) | |
| S006 | 1-571-787-11 | SWITCH, TACTILE (FF ▶▶) | |
| S007 | 1-571-787-11 | SWITCH, TACTILE (REC ●) | |
| S008 | 1-571-787-11 | SWITCH, TACTILE (STOP ■) | |
| S009 | 1-570-854-11 | SWITCH, SLIDE (VIDEO/LINE/PLAYER) | |
| S011 | 1-571-787-11 | SWITCH, TACTIL (SAVE) | |
| S012 | 1-571-787-11 | SWITCH, TACTILE (LOAD) | |
| S013 | 1-571-787-11 | SWITCH, TACTILE (ALL CLEAR) | |
| S014 | 1-570-864-11 | SWITCH, SLIDE (DATA SCREEN) | |
| S016 | 1-572-268-11 | SWITCH, SLIDE (MONITOR PCM/MIX/STD) | |
| S018 | 1-570-864-11 | SWITCH, SLIDE (AUDIO PLAYER/LINE) | |
| S020 | 1-570-865-11 | SWITCH, SLIDE (BEEP ON/OFF) | |
| S021 | 1-570-864-11 | SWITCH, SLIDE (LINE/VIDEO/S VIDEO) | |
| S022 | 1-570-854-11 | SWITCH, SLIDE (CNR SEL) | |
| S023 | 1-571-787-11 | SWITCH, TACTILE (STRAIGHT) | |
| S024 | 1-571-787-11 | SWITCH, TACTILE (PCM) | |
| S025 | 1-571-787-11 | SWITCH, TACTILE (MIX) | |
| S026 | 1-571-787-11 | SWITCH, TACTILE (AFM) | |
| S027 | 1-571-787-11 | SWITCH, TACTILE (C RST) | |

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* A-7062-220-A FB-171 BOARD, COMPLETE
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(Ref.No 19,000 Series)

* 3-689-521-01 HOLDER, LED, ROUND
* 3-747-015-01 HOLDER, FUNCTION LED
* 3-747-017-01 HOLDER, J/S LED
* 3-747-018-01 HOLDER, MODE LED

< CAPACITOR >

| Ref. No. | Part No. | Description | Remark |
|---|---|---|---|
| C101 | 1-163-035-00 | CERAMIC CHIP 0.047uF 50V | |
| C102 | 1-163-035-00 | CERAMIC CHIP 0.047uF 50V | |
| C103 | 1-163-035-00 | CERAMIC CHIP 0.047uF 50V | |
| C104 | 1-126-603-11 | ELECT CHIP 4.7uF 20% 35V | |
| C105 | 1-126-603-11 | ELECT CHIP 4.7uF 20% 35V | |
| C106 | 1-163-038-00 | CERAMIC CHIP 0.1uF 25V | |
| C107 | 1-163-038-00 | CERAMIC CHIP 0.1uF 25V | |
| C108 | 1-126-206-11 | ELECT CHIP 100uF 20% 6.3V | |
| C109 | 1-124-778-00 | ELECT CHIP 22uF 20% 6.3V | |
| C110 | 1-124-778-00 | ELECT CHIP 22uF 20% 6.3V | |
| C111 | 1-126-206-11 | ELECT CHIP 100uF 20% 6.3V | |
| C112 | 1-163-035-00 | CERAMIC CHIP 0.047uF 50V | |
| C113 | 1-164-232-11 | CERAMIC CHIP 0.01uF 50V | |
| C114 | 1-164-232-11 | CERAMIC CHIP 0.01uF 50V | |
| C115 | 1-164-232-11 | CERAMIC CHIP 0.01uF 50V | |
| C116 | 1-164-232-11 | CERAMIC CHIP 0.01uF 50V | |
| C117 | 1-124-779-00 | ELECT CHIP 10uF 20% 16v | |
| C118 | 1-124-779-00 | ELECT CHIP 10uF 20% 16v | |
| C120 | 1-163-117-00 | CERAMIC CHIP 100PF 5% 50V | |
| C121 | 1-163-117-00 | CERAMIC CHIP 100PF 5% 50V | |

< CONNECTOR >

| Ref. No. | Part No. | Description | Remark |
|---|---|---|---|
| CN101 | 1-506-468-11 | CONNECTOR 3P, MALE | |
| CN104 | 1-506-470-11 | CONNECTOR 5P, MALE | |

# FB-171

| Ref. No. | Part No. | Description | Remark |
|---|---|---|---|
| | | < DIODE > | |
| D101 | 8-719-920-05 | DIODE TLG123A | |
| D102 | 8-719-939-42 | DIODE GL5HD42 | |
| D104 | 8-719-800-76 | DIODE 1SS226 | |
| D105 | 8-719-800-76 | DIODE 1SS226 | |
| D106 | 8-719-800-76 | DIODE 1SS226 | |
| D107 | 8-719-800-76 | DIODE 1SS226 | |
| D109 | 8-719-812-32 | DIODE TLY123 | |
| D110 | 8-719-920-05 | DIODE TLG123A | |
| D111 | 8-719-812-32 | DIODE TLY123 | |
| D112 | 8-719-812-32 | DIODE TLY123 | |
| D113 | 8-719-939-36 | DIODE GL5HY42 | |
| D114 | 8-719-939-36 | DIODE GL5HY42 | |
| D115 | 8-719-812-32 | DIODE TLY123 | |
| D116 | 8-719-939-36 | DIODE GL5HY42 | |
| D118 | 8-719-812-31 | DIODE TLR123 | |
| D119 | 8-719-939-36 | DIODE GL5HY42 | |
| D120 | 8-719-939-37 | DIODE GL5EG42 | |
| D121 | 8-719-939-36 | DIODE GL5HY42 | |
| D122 | 8-719-800-76 | DIODE 1SS226 | |
| D123 | 8-719-104-34 | DIODE 1S2835 | |
| D124 | 8-719-104-34 | DIODE 1S2835 | |
| | | < IC > | |
| IC101 | 8-759-937-21 | IC CXD1078M | |
| IC102 | 8-759-981-XX | IC NJM4560M | |
| IC103 | 8-759-300-71 | IC TC4053BFHB | |
| | | < COIL > | |
| L101 | 1-410-393-11 | INDUCTOR CHIP 100uH | |
| L102 | 1-410-671-31 | INDUCTOR 47uH | |
| | | < TRANSISTOR > | |
| Q101 | 8-729-901-06 | TRANSISTOR DTA144EK | |
| Q103 | 8-729-100-66 | TRANSISTOR 2SC1623 | |
| Q104 | 8-729-216-22 | TRANSISTOR 2SA1162 | |
| Q105 | 8-729-901-01 | TRANSISTOR DTC144EK | |
| Q106 | 8-729-202-38 | TRANSISTOR 2SC3326N | |
| Q107 | 8-729-202-38 | TRANSISTOR 2SC3326N | |
| | | < RESISTOR > | |
| R101 | 1-216-029-00 | METAL CHIP 150 5% 1/10W | |
| R102 | 1-216-037-00 | METAL CHIP 330 5% 1/10W | |
| R104 | 1-216-072-00 | METAL CHIP 9.1K 5% 1/10W | |
| R105 | 1-216-072-00 | METAL CHIP 9.1K 5% 1/10W | |
| R106 | 1-216-089-00 | METAL CHIP 47K 5% 1/10W | |
| R107 | 1-216-072-00 | METAL CHIP 9.1K 5% 1/10W | |
| R108 | 1-216-081-00 | METAL CHIP 22K 5% 1/10W | |
| R109 | 1-216-089-00 | METAL CHIP 47K 5% 1/10W | |
| R110 | 1-216-099-00 | METAL CHIP 120K 5% 1/10W | |
| R112 | 1-216-037-00 | METAL CHIP 330 5% 1/10W | |
| R113 | 1-216-037-00 | METAL CHIP 330 5% 1/10W | |
| R114 | 1-216-037-00 | METAL CHIP 330 5% 1/10W | |
| R115 | 1-216-037-00 | METAL CHIP 330 5% 1/10W | |
| R116 | 1-216-025-00 | METAL CHIP 100 5% 1/10W | |
| R117 | 1-216-037-00 | METAL CHIP 330 5% 1/10W | |
| R118 | 1-216-037-00 | METAL CHIP 330 5% 1/10W | |
| R120 | 1-216-037-00 | METAL CHIP 330 5% 1/10W | |
| R121 | 1-216-037-00 | METAL CHIP 330 5% 1/10W | |
| R122 | 1-216-037-00 | METAL CHIP 330 5% 1/10W | |
| R123 | 1-216-037-00 | METAL CHIP 330 5% 1/10W | |
| R124 | 1-216-037-00 | METAL CHIP 330 5% 1/10W | |
| R125 | 1-216-073-00 | METAL CHIP 10K 5% 1/10W | |
| R126 | 1-216-073-00 | METAL CHIP 10K 5% 1/10W | |
| R128 | 1-216-085-00 | METAL CHIP 33K 5% 1/10W | |
| R129 | 1-216-065-00 | METAL CHIP 4.7K 5% 1/10W | |
| R130 | 1-216-061-00 | METAL CHIP 3.3K 5% 1/10W | |
| R131 | 1-216-061-00 | METAL CHIP 3.3K 5% 1/10W | |
| R132 | 1-216-089-00 | METAL CHIP 47K 5% 1/10W | |
| R133 | 1-216-113-00 | METAL CHIP 470K 5% 1/10W | |
| R134 | 1-216-065-00 | METAL CHIP 4.7K 5% 1/10W | |
| R135 | 1-216-085-00 | METAL CHIP 33K 5% 1/10W | |
| R136 | 1-216-061-00 | METAL CHIP 3.3K 5% 1/10W | |
| R137 | 1-216-061-00 | METAL CHIP 3.3K 5% 1/10W | |
| R138 | 1-216-037-00 | METAL CHIP 330 5% 1/10W | |
| R139 | 1-216-089-00 | METAL CHIP 47K 5% 1/10W | |
| R140 | 1-216-065-00 | METAL CHIP 4.7K 5% 1/10W | |
| R141 | 1-216-073-00 | METAL CHIP 10K 5% 1/10W | |
| R142 | 1-216-105-00 | METAL CHIP 220K 5% 1/10W | |
| R143 | 1-216-105-00 | METAL CHIP 220K 5% 1/10W | |
| R144 | 1-216-073-00 | METAL CHIP 10K 5% 1/10W | |
| R145 | 1-216-073-00 | METAL CHIP 10K 5% 1/10W | |
| | | < VARIABLE RESISTOR > | |
| RV101 | 1-230-122-00 | RES, VAR, CARBON 100K (SLOW ADJ) | |
| RV102 | 1-230-874-11 | RES, ADJ, METAL100K | |
| RV103 | 1-228-988-00 | RES, VAR, CARBON 10K/10K (HEADPHONE LEVEL) | |
| | | < SWITCH > | |
| S102 | 1-571-787-11 | SWITCH, TACTILE (TC REC) | |
| S103 | 1-571-787-11 | SWITCH, TACTILE (STOP ■) | |
| S104 | 1-571-787-11 | SWITCH, TACTILE (FF ▶▶) | |
| S105 | 1-571-787-11 | SWITCH, TACTILE (EJECT ⏏) | |
| S106 | 1-571-787-11 | SWITCH, TACTILE (PB ▶) | |

| Ref. No. | Part No. | Description | | | Remark |
|---|---|---|---|---|---|
| S107 | 1-571-787-11 | SWITCH, TACTILE (PAUSE ❚❚) | | | |
| S108 | 1-571-787-11 | SWITCH, TACTILE (REW◀◀) | | | |
| S109 | 1-571-787-11 | SWITCH, TACTILE (POWER) | | | |

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* A-7062-165-A FR-43 BOARD, COMPLETE

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(Ref.No 1,000 Series)

* 3-739-102-01 LID (H), UPPER, FR SHIELD CASE

< WIRE >

| Ref. No. | Part No. | Description |
|---|---|---|
| A3 | 1-559-763-11 | WIRE, FLAT TYPE 26P |

< CAPACITOR >

| Ref. No. | Part No. | Description | | | Remark |
|---|---|---|---|---|---|
| C002 | 1-163-035-00 | CERAMIC CHIP | 0.047uF | | 50V |
| C004 | 1-163-035-00 | CERAMIC CHIP | 0.047uF | | 50V |
| C005 | 1-135-091-00 | TANTALUM CHIP | 1uF | 20% | 16V |
| C006 | 1-163-035-00 | CERAMIC CHIP | 0.047uF | | 50V |
| C007 | 1-135-091-00 | TANTALUM CHIP | 1uF | 20% | 16V |
| C008 | 1-164-232-11 | CERAMIC CHIP | 0.01uF | | 50V |
| C009 | 1-163-035-00 | CERAMIC CHIP | 0.047uF | | 50V |
| C010 | 1-163-038-00 | CERAMIC CHIP | 0.1uF | | 25V |
| C011 | 1-163-017-00 | CERAMIC CHIP | 0.0047uF | 5% | 50V |
| C012 | 1-135-157-21 | TANTALUM CHIP | 10uF | 20% | 6.3V |
| C013 | 1-163-038-00 | CERAMIC CHIP | 0.1uF | | 25V |
| C031 | 1-135-157-21 | TANTALUM CHIP | 10uF | 20% | 6.3V |
| C032 | 1-164-232-11 | CERAMIC CHIP | 0.01uF | | 50V |
| C033 | 1-164-232-11 | CERAMIC CHIP | 0.01uF | | 50V |
| C034 | 1-163-038-00 | CERAMIC CHIP | 0.1uF | | 25V |
| C041 | 1-164-232-11 | CERAMIC CHIP | 0.01uF | | 50V |
| C042 | 1-163-038-00 | CERAMIC CHIP | 0.1uF | | 25V |
| C044 | 1-163-117-00 | CERAMIC CHIP | 100PF | 5% | 50V |
| C045 | 1-163-117-00 | CERAMIC CHIP | 100PF | 5% | 50V |
| C046 | 1-163-121-00 | CERAMIC CHIP | 150PF | 5% | 50V |
| C047 | 1-163-117-00 | CERAMIC CHIP | 100PF | 5% | 50V |
| C048 | 1-163-035-00 | CERAMIC CHIP | 0.047uF | | 50V |
| C051 | 1-163-038-00 | CERAMIC CHIP | 0.1uF | | 25V |
| C052 | 1-135-211-11 | TANTAL. CHIP | 6.8uF | 20% | 6.3V |
| C053 | 1-135-148-21 | TANTAL. CHIP | 1.5uF | 20% | 10V |
| C054 | 1-163-037-11 | CERAMIC CHIP | 0.022uF | 10% | 25V |
| C055 | 1-163-037-11 | CERAMIC CHIP | 0.022uF | 10% | 25V |
| C056 | 1-163-037-11 | CERAMIC CHIP | 0.022uF | 10% | 25V |
| C057 | 1-163-035-00 | CERAMIC CHIP | 0.047uF | | 50V |
| C058 | 1-163-035-00 | CERAMIC CHIP | 0.047uF | | 50V |
| C059 | 1-163-035-00 | CERAMIC CHIP | 0.047uF | | 50V |
| C060 | 1-163-035-00 | CERAMIC CHIP | 0.047uF | | 50V |

< CONNECTOR >

| Ref. No. | Part No. | Description | Remark |
|---|---|---|---|
| CN001 | 1-562-629-11 | SOCKET, CONNECTOR 19P | |
| CN002 | 1-565-209-11 | CONNECTOR, FPC (ZIF) 26P | |
| CN003 | 1-506-473-11 | CONNECTOR 8P, MALE | |
| CN004 | 1-506-472-11 | CONNECTOR 7P, MALE | |

< DIODE >

| Ref. No. | Part No. | Description | |
|---|---|---|---|
| D001 | 8-719-400-18 | DIODE | MA152WK |

< IC >

| Ref. No. | Part No. | Description | |
|---|---|---|---|
| IC051 | 8-759-710-09 | IC | NJM2233AM |
| IC052 | 8-759-300-71 | IC | MC14053BF-T1 |

< COIL >

| Ref. No. | Part No. | Description | |
|---|---|---|---|
| L031 | 1-408-777-00 | INDUCTOR CHIP | 10uH |
| L041 | 1-408-793-21 | INDUCTOR CHIP | 220uH |
| L042 | 1-408-777-00 | INDUCTOR CHIP | 10uH |
| L051 | 1-408-785-21 | INDUCTOR CHIP | 47uH |

< TRANSISTOR >

| Ref. No. | Part No. | Description | |
|---|---|---|---|
| Q001 | 8-729-202-38 | TRANSISTOR | 2SC3326N |
| Q002 | 8-729-202-38 | TRANSISTOR | 2SC3326N |
| Q003 | 8-729-202-38 | TRANSISTOR | 2SC3326N |
| Q004 | 8-729-202-38 | TRANSISTOR | 2SC3326N |
| Q005 | 8-729-901-05 | TRANSISTOR | DTA124EK |
| Q006 | 8-729-901-05 | TRANSISTOR | DTA124EK |
| Q007 | 8-729-901-01 | TRANSISTOR | DTC144EK |
| Q008 | 8-729-901-01 | TRANSISTOR | DTC144EK |
| Q009 | 8-729-320-17 | TRANSISTOR | 2SA1122CD |
| Q031 | 8-729-201-27 | TRANSISTOR | 2SC2715 |
| Q032 | 8-729-102-07 | TRANSISTOR | 2SC2223 |
| Q041 | 8-729-216-22 | TRANSISTOR | 2SA1162 |
| Q042 | 8-729-119-76 | TRANSISTOR | 2SA1175 |
| Q043 | 8-729-320-17 | TRANSISTOR | 2SA1122CD |

< RESISTOR >

| Ref. No. | Part No. | Description | | | Remark |
|---|---|---|---|---|---|
| R001 | 1-216-065-00 | METAL CHIP | 4.7K | 5% | 1/10W |
| R002 | 1-216-065-00 | METAL CHIP | 4.7K | 5% | 1/10W |
| R003 | 1-216-097-00 | METAL CHIP | 100K | 5% | 1/10W |
| R004 | 1-216-065-00 | METAL CHIP | 4.7K | 5% | 1/10W |
| R005 | 1-216-065-00 | METAL CHIP | 4.7K | 5% | 1/10W |
| R006 | 1-216-097-00 | METAL CHIP | 100K | 5% | 1/10W |
| R007 | 1-216-065-00 | METAL CHIP | 4.7K | 5% | 1/10W |
| R008 | 1-216-065-00 | METAL CHIP | 4.7K | 5% | 1/10W |
| R009 | 1-216-097-00 | METAL CHIP | 100K | 5% | 1/10W |
| R010 | 1-216-065-00 | METAL CHIP | 4.7K | 5% | 1/10W |
| R011 | 1-216-065-00 | METAL CHIP | 4.7K | 5% | 1/10W |
| R012 | 1-216-097-00 | METAL CHIP | 100K | 5% | 1/10W |

# FR-43 HE-3 HK-5

| Ref. No. | Part No. | Description | | | Remark |
|---|---|---|---|---|---|
| R015 | 1-216-085-00 | METAL CHIP | 33K | 5% | 1/10W |
| R016 | 1-216-073-00 | METAL CHIP | 10K | 5% | 1/10W |
| R017 | 1-216-049-00 | METAL CHIP | 1K | 5% | 1/10W |
| R018 | 1-216-695-11 | METAL CHIP | 68K | 0.5% | 1/10W |
| R019 | 1-216-061-00 | METAL CHIP | 3.3K | 5% | 1/10W |
| R020 | 1-216-025-00 | METAL CHIP | 100 | 5% | 1/10W |
| R021 | 1-216-025-00 | METAL CHIP | 100 | 5% | 1/10W |
| R022 | 1-216-025-00 | METAL CHIP | 100 | 5% | 1/10W |
| R023 | 1-216-025-00 | METAL CHIP | 100 | 5% | 1/10W |
| R024 | 1-216-033-00 | METAL CHIP | 220 | 5% | 1/10W |
| R025 | 1-216-033-00 | METAL CHIP | 220 | 5% | 1/10W |
| R031 | 1-216-041-00 | METAL CHIP | 470 | 5% | 1/10W |
| R032 | 1-216-047-00 | METAL CHIP | 820 | 5% | 1/10W |
| R033 | 1-216-035-00 | METAL CHIP | 270 | 5% | 1/10W |
| R034 | 1-216-039-00 | METAL CHIP | 390 | 5% | 1/10W |
| R035 | 1-216-085-00 | METAL CHIP | 33K | 5% | 1/10W |
| R036 | 1-216-077-00 | METAL CHIP | 15K | 5% | 1/10W |
| R037 | 1-216-081-00 | METAL CHIP | 22K | 5% | 1/10W |
| R038 | 1-216-085-00 | METAL CHIP | 33K | 5% | 1/10W |
| R039 | 1-216-081-00 | METAL CHIP | 22K | 5% | 1/10W |
| R040 | 1-216-085-00 | METAL CHIP | 33K | 5% | 1/10W |
| R041 | 1-216-085-00 | METAL CHIP | 33K | 5% | 1/10W |
| R042 | 1-216-081-00 | METAL CHIP | 22K | 5% | 1/10W |
| R043 | 1-216-037-00 | METAL CHIP | 330 | 5% | 1/10W |
| R044 | 1-216-041-00 | METAL CHIP | 470 | 5% | 1/10W |
| R045 | 1-216-021-00 | METAL CHIP | 68 | 5% | 1/10W |
| R046 | 1-216-013-00 | METAL CHIP | 33 | 5% | 1/10W |
| R047 | 1-216-043-00 | METAL CHIP | 560 | 5% | 1/10W |
| R048 | 1-216-081-00 | METAL CHIP | 22K | 5% | 1/10W |
| R049 | 1-216-057-00 | METAL CHIP | 2.2K | 5% | 1/10W |
| R051 | 1-216-035-00 | METAL CHIP | 270 | 5% | 1/10W |
| R052 | 1-216-025-00 | METAL CHIP | 100 | 5% | 1/10W |

< VARIABLE RESISTOR >

| | | |
|---|---|---|
| RV1 | 1-230-871-11 | RES, ADJ, METAL 22K |
| RV2 | 1-230-871-11 | RES, ADJ, METAL 22K |

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* 1-635-328-11 HE-3 BOARD (Ref. No 19,000 Series)

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< JACK >

| | | |
|---|---|---|
| J401 | 1-507-792-00 | JACK (HEAD PHONES) |

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* A-7062-164-A HK-5 BOARD, COMPLETE

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(Ref. No 4,000 Series)

| Ref. No. | Part No. | Description |
|---|---|---|
| | 3-531-576-01 | RIVET |
| | * 3-724-107-01 | RETAINER, PC BOARD |
| | 3-831-441-XX | CUSHION (5) |

< CAPACITOR >

| Ref. No. | Part No. | Description | | | Remark |
|---|---|---|---|---|---|
| C101 | 1-135-166-21 | TANTALUM CHIP | 47uF | 10% | 10V |
| C102 | 1-163-035-00 | CERAMIC CHIP | 0.047uF | | 50V |
| C103 | 1-163-035-00 | CERAMIC CHIP | 0.047uF | | 50V |
| C104 | 1-163-011-11 | CERAMIC CHIP | 0.0015uF | 10% | 50V |
| C105 | 1-163-035-00 | CERAMIC CHIP | 0.047uF | | 50V |
| C106 | 1-163-127-00 | CERAMIC CHIP | 270PF | 5% | 50V |
| C108 | 1-163-109-00 | CERAMIC CHIP | 47PF | 5% | 50V |
| C109 | 1-163-109-00 | CERAMIC CHIP | 47PF | 5% | 50V |
| C110 | 1-163-105-00 | CERAMIC CHIP | 33PF | 5% | 50V |
| C111 | 1-163-114-00 | CERAMIC CHIP | 75PF | 5% | 50V |
| C112 | 1-163-245-11 | CERAMIC CHIP | 56PF | 5% | 50V |
| C113 | 1-163-035-00 | CERAMIC CHIP | 0.047uF | | 50V |
| C114 | 1-163-035-00 | CERAMIC CHIP | 0.047uF | | 50V |
| C115 | 1-163-035-00 | CERAMIC CHIP | 0.047uF | | 50V |
| C116 | 1-135-070-00 | TANTALUM CHIP | 0.1uF | 10% | 35V |
| C117 | 1-163-035-00 | CERAMIC CHIP | 0.047uF | | 50V |
| C118 | 1-163-224-11 | CERAMIC CHIP | 7PF | 0.25PF | 50V |
| C119 | 1-163-227-11 | CERAMIC CHIP | 10PF | 5% | 50V |
| C120 | 1-163-035-00 | CERAMIC CHIP | 0.047uF | | 50V |
| C122 | 1-163-085-00 | CERAMIC CHIP | 2PF | | 50V |
| C123 | 1-163-035-00 | CERAMIC CHIP | 0.047uF | | 50V |
| C124 | 1-163-103-00 | CERAMIC CHIP | 27PF | 5% | 50V |
| C126 | 1-163-035-00 | CERAMIC CHIP | 0.047uF | | 50V |
| C127 | 1-163-035-00 | CERAMIC CHIP | 0.047uF | | 50V |
| C128 | 1-163-035-00 | CERAMIC CHIP | 0.047uF | | 50V |
| C129 | 1-163-227-11 | CERAMIC CHIP | 10PF | 5% | 50V |
| C130 | 1-163-035-00 | CERAMIC CHIP | 0.047uF | | 50V |
| C131 | 1-163-109-00 | CERAMIC CHIP | 47PF | 5% | 50V |
| C132 | 1-163-035-00 | CERAMIC CHIP | 0.047uF | | 50V |
| C133 | 1-163-089-00 | CERAMIC CHIP | 6PF | | 50V |
| C134 | 1-163-235-11 | CERAMIC CHIP | 22PF | 5% | 50V |
| C135 | 1-163-224-11 | CERAMIC CHIP | 7PF | 0.25PF | 50V |
| C136 | 1-163-099-00 | CERAMIC CHIP | 18PF | 5% | 50V |
| C137 | 1-163-035-00 | CERAMIC CHIP | 0.047uF | | 50V |
| C138 | 1-163-035-00 | CERAMIC CHIP | 0.047uF | | 50V |
| C139 | 1-163-035-00 | CERAMIC CHIP | 0.047uF | | 50V |
| C140 | 1-163-035-00 | CERAMIC CHIP | 0.047uF | | 50V |
| C141 | 1-163-035-00 | CERAMIC CHIP | 0.047uF | | 50V |
| C142 | 1-163-035-00 | CERAMIC CHIP | 0.047uF | | 50V |
| C143 | 1-135-145-11 | TANTALUM CHIP | 0.47uF | 10% | 25V |

| Ref. No. | Part No. | Description | | | Remark |
|---|---|---|---|---|---|
| C144 | 1-163-251-11 | CERAMIC CHIP | 100PF | 5% | 50V |
| C145 | 1-163-035-00 | CERAMIC CHIP | 0.047uF | | 50V |
| C146 | 1-163-035-00 | CERAMIC CHIP | 0.047uF | | 50V |
| C147 | 1-163-141-00 | CERAMIC CHIP | 0.001uF | 5% | 50V |
| C148 | 1-163-035-00 | CERAMIC CHIP | 0.047uF | | 50V |
| C149 | 1-163-097-00 | CERAMIC CHIP | 15PF | 5% | 50V |
| C181 | 1-163-141-00 | CERAMIC CHIP | 0.001uF | 5% | 50V |
| C182 | 1-163-141-00 | CERAMIC CHIP | 0.001uF | 5% | 50V |
| C183 | 1-163-035-00 | CERAMIC CHIP | 0.047uF | | 50V |
| C184 | 1-163-109-00 | CERAMIC CHIP | 47PF | 5% | 50V |
| C201 | 1-135-166-21 | TANTALUM CHIP | 47uF | 10% | 10V |
| C202 | 1-163-035-00 | CERAMIC CHIP | 0.047uF | | 50V |
| C203 | 1-163-109-00 | CERAMIC CHIP | 47PF | 5% | 50V |
| C204 | 1-163-035-00 | CERAMIC CHIP | 0.047uF | | 50V |
| C206 | 1-163-035-00 | CERAMIC CHIP | 0.047uF | | 50V |
| C207 | 1-163-035-00 | CERAMIC CHIP | 0.047uF | | 50V |
| C208 | 1-163-097-00 | CERAMIC CHIP | 15PF | 5% | 50V |
| C209 | 1-163-235-11 | CERAMIC CHIP | 22PF | 5% | 50V |
| C210 | 1-163-106-00 | CERAMIC CHIP | 36PF | 5% | 50V |
| C211 | 1-163-035-00 | CERAMIC CHIP | 0.047uF | | 50V |
| C212 | 1-135-211-11 | TANTAL. CHIP | 6.8uF | 20% | 6.3V |
| C213 | 1-163-035-00 | CERAMIC CHIP | 0.047uF | | 50V |
| C214 | 1-163-035-00 | CERAMIC CHIP | 0.047uF | | 50V |
| C215 | 1-163-035-00 | CERAMIC CHIP | 0.047uF | | 50V |
| C216 | 1-163-035-00 | CERAMIC CHIP | 0.047uF | | 50V |
| C217 | 1-163-035-00 | CERAMIC CHIP | 0.047uF | | 50V |
| C218 | 1-163-035-00 | CERAMIC CHIP | 0.047uF | | 50V |
| C219 | 1-163-035-00 | CERAMIC CHIP | 0.047uF | | 50V |
| C220 | 1-163-035-00 | CERAMIC CHIP | 0.047uF | | 50V |
| C221 | 1-163-035-00 | CERAMIC CHIP | 0.047uF | | 50V |
| C222 | 1-163-035-00 | CERAMIC CHIP | 0.047uF | | 50V |
| C223 | 1-163-035-00 | CERAMIC CHIP | 0.047uF | | 50V |
| C224 | 1-163-035-00 | CERAMIC CHIP | 0.047uF | | 50V |
| C302 | 1-135-166-21 | TANTALUM CHIP | 47uF | 10% | 10V |
| C303 | 1-163-095-00 | CERAMIC CHIP | 12PF | 5% | 50V |
| C304 | 1-163-099-00 | CERAMIC CHIP | 18PF | 5% | 50V |
| C305 | 1-163-137-00 | CERAMIC CHIP | 680PF | 5% | 50V |
| C307 | 1-163-035-00 | CERAMIC CHIP | 0.047uF | | 50V |
| C308 | 1-135-166-21 | TANTALUM CHIP | 47uF | 10% | 10V |
| C309 | 1-163-035-00 | CERAMIC CHIP | 0.047uF | | 50V |
| C311 | 1-163-121-00 | CERAMIC CHIP | 150PF | 5% | 50V |
| C313 | 1-135-166-21 | TANTALUM CHIP | 47uF | 10% | 10V |
| C314 | 1-163-241-11 | CERAMIC CHIP | 39PF | 5% | 50V |
| C316 | 1-163-241-11 | CERAMIC CHIP | 39PF | 5% | 50V |
| C317 | 1-163-245-11 | CERAMIC CHIP | 56PF | 5% | 50V |
| C318 | 1-164-491-11 | CERAMIC CHIP | 300PF | 1% | 50V |
| C319 | 1-163-035-00 | CERAMIC CHIP | 0.047uF | | 50V |
| C320 | 1-163-133-00 | CERAMIC CHIP | 470PF | 5% | 50V |
| C321 | 1-163-035-00 | CERAMIC CHIP | 0.047uF | | 50V |

| Ref. No. | Part No. | Description | | | Remark |
|---|---|---|---|---|---|
| C322 | 1-163-038-00 | CERAMIC CHIP | 0.1uF | | 25V |
| C323 | 1-163-012-00 | CERAMIC CHIP | 0.0018uF | 10% | 50V |
| C324 | 1-163-035-00 | CERAMIC CHIP | 0.047uF | | 50V |
| C325 | 1-135-156-21 | TANTALUM CHIP | 6.8uF | 10% | 6.3V |
| C326 | 1-163-035-00 | CERAMIC CHIP | 0.047uF | | 50V |
| C327 | 1-135-156-21 | TANTALUM CHIP | 6.8uF | 10% | 6.3V |
| C328 | 1-163-035-00 | CERAMIC CHIP | 0.047uF | | 50V |
| C329 | 1-135-166-21 | TANTALUM CHIP | 47uF | 10% | 10V |
| C330 | 1-163-035-00 | CERAMIC CHIP | 0.047uF | | 50V |
| C331 | 1-135-211-11 | TANTAL. CHIP | 6.8uF | 20% | 6.3V |
| C332 | 1-135-155-21 | TANTALUM CHIP | 4.7uF | 10% | 10V |
| C334 | 1-135-155-21 | TANTALUM CHIP | 4.7uF | 10% | 10V |
| C335 | 1-163-035-00 | CERAMIC CHIP | 0.047uF | | 50V |
| C337 | 1-163-113-00 | CERAMIC CHIP | 68PF | 5% | 50V |
| C338 | 1-163-035-00 | CERAMIC CHIP | 0.047uF | | 50V |
| C339 | 1-163-035-00 | CERAMIC CHIP | 0.047uF | | 50V |
| C340 | 1-135-072-21 | TANTALUM CHIP | 0.22uF | 10% | 35V |
| C341 | 1-135-161-21 | TANTALUM CHIP | 22uF | 10% | 6.3V |
| C342 | 1-135-166-21 | TANTALUM CHIP | 47uF | 10% | 10V |
| C343 | 1-163-035-00 | CERAMIC CHIP | 0.047uF | | 50V |
| C344 | 1-163-251-11 | CERAMIC CHIP | 100PF | 5% | 50V |
| C345 | 1-163-134-00 | CERAMIC CHIP | 510PF | 5% | 50V |
| C347 | 1-163-035-00 | CERAMIC CHIP | 0.047uF | | 50V |
| C348 | 1-135-166-21 | TANTALUM CHIP | 47uF | 10% | 10V |
| C349 | 1-135-177-21 | TANTALUM CHIP | 1uF | 20% | 20V |
| C350 | 1-135-161-21 | TANTALUM CHIP | 22uF | 10% | 6.3V |
| C402 | 1-124-968-11 | ELECT | 22uF | 20% | 6.3V |
| C403 | 1-163-106-00 | CERAMIC CHIP | 36PF | 5% | 50V |
| C404 | 1-163-245-11 | CERAMIC CHIP | 56PF | 5% | 50V |
| C405 | 1-163-099-00 | CERAMIC CHIP | 18PF | 5% | 50V |
| C406 | 1-163-133-00 | CERAMIC CHIP | 470PF | 5% | 50V |
| C407 | 1-135-149-21 | TANTALUM CHIP | 2.2uF | 20% | 10V |
| C408 | 1-163-227-11 | CERAMIC CHIP | 10PF | 5% | 50V |
| C409 | 1-164-232-11 | CERAMIC CHIP | 0.01uF | | 50V |
| C410 | 1-163-109-00 | CERAMIC CHIP | 47PF | 5% | 50V |
| C411 | 1-163-088-00 | CERAMIC CHIP | 5PF | | 50V |
| C412 | 1-135-156-21 | TANTALUM CHIP | 6.8uF | 10% | 6.3V |
| C413 | 1-163-035-00 | CERAMIC CHIP | 0.047uF | | 50V |
| C414 | 1-164-232-11 | CERAMIC CHIP | 0.01uF | | 50V |
| C415 | 1-163-235-11 | CERAMIC CHIP | 22PF | 5% | 50V |
| C416 | 1-164-232-11 | CERAMIC CHIP | 0.01uF | | 50V |
| C417 | 1-162-722-11 | CERAMIC | 330PF | 1% | 50V |
| C418 | 1-162-724-11 | CERAMIC | 390PF | 1% | 50V |
| C419 | 1-164-491-11 | CERAMIC CHIP | 300PF | 1% | 50V |
| C420 | 1-135-156-21 | TANTALUM CHIP | 6.8uF | 10% | 6.3V |
| C421 | 1-163-035-00 | CERAMIC CHIP | 0.047uF | | 50V |
| C422 | 1-163-035-00 | CERAMIC CHIP | 0.047uF | | 50V |
| C423 | 1-163-035-00 | CERAMIC CHIP | 0.047uF | | 50V |
| C424 | 1-135-155-21 | TANTALUM CHIP | 4.7uF | 10% | 10V |

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| Ref. No. | Part No. | Description | | | Remark |
|---|---|---|---|---|---|
| C427 | 1-135-161-21 | TANTALUM CHIP | 22uF | 10% | 6.3V |
| C428 | 1-135-161-21 | TANTALUM CHIP | 22uF | 10% | 6.3V |
| C429 | 1-135-161-21 | TANTALUM CHIP | 22uF | 10% | 6.3V |
| C430 | 1-163-097-00 | CERAMIC CHIP | 15PF | 5% | 50V |
| C501 | 1-135-166-21 | TANTALUM CHIP | 47uF | 10% | 10V |
| C502 | 1-163-035-00 | CERAMIC CHIP | 0.047uF | | 50V |
| C503 | 1-163-141-00 | CERAMIC CHIP | 0.001uF | 5% | 50V |
| C504 | 1-163-038-00 | CERAMIC CHIP | 0.1uF | | 25V |
| C505 | 1-164-232-11 | CERAMIC CHIP | 0.01uF | | 50V |
| C506 | 1-163-235-11 | CERAMIC CHIP | 22PF | 5% | 50V |
| C507 | 1-163-035-00 | CERAMIC CHIP | 0.047uF | | 50V |
| C508 | 1-163-245-11 | CERAMIC CHIP | 56PF | 5% | 50V |
| C509 | 1-135-156-21 | TANTALUM CHIP | 6.8uF | 10% | 6.3V |
| C510 | 1-135-156-21 | TANTALUM CHIP | 6.8uF | 10% | 6.3V |
| C511 | 1-164-232-11 | CERAMIC CHIP | 0.01uF | | 50V |
| C512 | 1-135-149-21 | TANTALUM CHIP | 2.2uF | 20% | 10V |
| C513 | 1-163-035-00 | CERAMIC CHIP | 0.047uF | | 50V |
| C514 | 1-163-133-00 | CERAMIC CHIP | 470PF | 5% | 50V |
| C515 | 1-163-105-00 | CERAMIC CHIP | 33PF | 5% | 50V |
| C516 | 1-135-155-21 | TANTALUM CHIP | 4.7uF | 10% | 10V |
| C517 | 1-163-121-00 | CERAMIC CHIP | 150PF | 5% | 50V |
| C519 | 1-135-149-21 | TANTALUM CHIP | 2.2uF | 20% | 10V |
| C520 | 1-163-245-11 | CERAMIC CHIP | 56PF | 5% | 50V |
| C521 | 1-163-103-00 | CERAMIC CHIP | 27PF | 5% | 50V |
| C522 | 1-163-035-00 | CERAMIC CHIP | 0.047uF | | 50V |
| C523 | 1-164-232-11 | CERAMIC CHIP | 0.01uF | | 50V |
| C524 | 1-163-141-00 | CERAMIC CHIP | 0.001uF | 5% | 50V |
| C525 | 1-163-035-00 | CERAMIC CHIP | 0.047uF | | 50V |
| C526 | 1-135-161-21 | TANTALUM CHIP | 22uF | 10% | 6.3V |
| C527 | 1-135-161-21 | TANTALUM CHIP | 22uF | 10% | 6.3V |
| C528 | 1-163-141-00 | CERAMIC CHIP | 0.001uF | 5% | 50V |
| C529 | 1-163-035-00 | CERAMIC CHIP | 0.047uF | | 50V |
| C531 | 1-135-161-21 | TANTALUM CHIP | 22uF | 10% | 6.3V |
| C532 | 1-163-037-11 | CERAMIC CHIP | 0.022uF | 10% | 25V |
| C601 | 1-135-156-21 | TANTALUM CHIP | 6.8uF | 10% | 6.3V |
| C602 | 1-163-035-00 | CERAMIC CHIP | 0.047uF | | 50V |
| C603 | 1-163-263-11 | CERAMIC CHIP | 330PF | 5% | 50V |
| C604 | 1-163-035-00 | CERAMIC CHIP | 0.047uF | | 50V |
| C605 | 1-163-251-11 | CERAMIC CHIP | 100PF | 5% | 50V |
| C606 | 1-163-141-00 | CERAMIC CHIP | 0.001uF | 5% | 50V |
| C607 | 1-135-070-00 | TANTALUM CHIP | 0.1uF | 10% | 35V |
| C608 | 1-163-263-11 | CERAMIC CHIP | 330PF | 5% | 50V |
| C609 | 1-135-156-21 | TANTALUM CHIP | 6.8uF | 10% | 6.3V |
| C610 | 1-163-035-00 | CERAMIC CHIP | 0.047uF | | 50V |
| C611 | 1-163-035-00 | CERAMIC CHIP | 0.047uF | | 50V |
| C612 | 1-163-035-00 | CERAMIC CHIP | 0.047uF | | 50V |
| C613 | 1-135-073-00 | TANTALUM CHIP | 0.33uF | 10% | 35V |
| C614 | 1-163-098-00 | CERAMIC CHIP | 16PF | 5% | 50V |

| Ref. No. | Part No. | Description | | | Remark |
|---|---|---|---|---|---|
| C615 | 1-163-141-00 | CERAMIC CHIP | 0.001uF | 5% | 50V |
| C616 | 1-163-108-00 | CERAMIC CHIP | 43PF | 5% | 50V |
| C617 | 1-163-263-11 | CERAMIC CHIP | 330PF | 5% | 50V |
| C618 | 1-163-263-11 | CERAMIC CHIP | 330PF | 5% | 50V |
| C619 | 1-163-035-00 | CERAMIC CHIP | 0.047uF | | 50V |
| C620 | 1-163-037-11 | CERAMIC CHIP | 0.022uF | 10% | 25V |
| C621 | 1-135-155-21 | TANTALUM CHIP | 4.7uF | 10% | 10V |
| C622 | 1-135-156-21 | TANTALUM CHIP | 6.8uF | 10% | 6.3V |
| C623 | 1-135-156-21 | TANTALUM CHIP | 6.8uF | 10% | 6.3V |
| C624 | 1-163-035-00 | CERAMIC CHIP | 0.047uF | | 50V |
| C625 | 1-163-121-00 | CERAMIC CHIP | 150PF | 5% | 50V |
| C627 | 1-163-075-00 | CERAMIC CHIP | 0.047uF | | 50V |
| C628 | 1-163-035-00 | CERAMIC CHIP | 0.047uF | | 50V |
| C629 | 1-163-035-00 | CERAMIC CHIP | 0.047uF | | 50V |
| C630 | 1-163-037-11 | CERAMIC CHIP | 0.022uF | 10% | 25V |
| C631 | 1-135-072-21 | TANTALUM CHIP | 0.22uF | 10% | 35V |
| C632 | 1-135-149-21 | TANTALUM CHIP | 2.2uF | 20% | 10V |
| C633 | 1-163-833-00 | CERAMIC CHIP | 0.068uF | | 25V |
| C634 | 1-135-149-21 | TANTALUM CHIP | 2.2uF | 20% | 10V |
| C635 | 1-164-182-11 | CERAMIC CHIP | 0.0033uF | 10% | 50V |
| C636 | 1-163-263-11 | CERAMIC CHIP | 330PF | 5% | 50V |
| C637 | 1-135-149-21 | TANTALUM CHIP | 2.2uF | 20% | 10V |
| C638 | 1-163-141-00 | CERAMIC CHIP | 0.001uF | 5% | 50V |
| C639 | 1-163-263-11 | CERAMIC CHIP | 330PF | 5% | 50V |
| C640 | 1-163-109-00 | CERAMIC CHIP | 47PF | 5% | 50V |
| C641 | 1-163-035-00 | CERAMIC CHIP | 0.047uF | | 50V |
| C642 | 1-163-035-00 | CERAMIC CHIP | 0.047uF | | 50V |
| C644 | 1-163-115-00 | CERAMIC CHIP | 82PF | 5% | 50V |
| C645 | 1-163-245-11 | CERAMIC CHIP | 56PF | 5% | 50V |
| C646 | 1-163-119-00 | CERAMIC CHIP | 120PF | 5% | 50V |
| C647 | 1-163-251-11 | CERAMIC CHIP | 100PF | 5% | 50V |
| C648 | 1-163-251-11 | CERAMIC CHIP | 100PF | 5% | 50V |
| C649 | 1-163-105-00 | CERAMIC CHIP | 33PF | 5% | 50V |
| C650 | 1-163-251-11 | CERAMIC CHIP | 100PF | 5% | 50V |
| C651 | 1-163-251-11 | CERAMIC CHIP | 100PF | 5% | 50V |
| C652 | 1-135-149-21 | TANTALUM CHIP | 2.2uF | 20% | 10V |
| C653 | 1-163-035-00 | CERAMIC CHIP | 0.047uF | | 50V |
| C654 | 1-163-251-11 | CERAMIC CHIP | 100PF | 5% | 50V |
| C655 | 1-163-113-00 | CERAMIC CHIP | 68PF | 5% | 50V |
| C657 | 1-163-133-00 | CERAMIC CHIP | 470PF | 5% | 50V |
| C658 | 1-163-141-00 | CERAMIC CHIP | 0.001uF | 5% | 50V |
| C659 | 1-163-245-11 | CERAMIC CHIP | 56PF | 5% | 50V |
| C660 | 1-163-011-11 | CERAMIC CHIP | 0.0015uF | 10% | 50V |
| C661 | 1-163-235-11 | CERAMIC CHIP | 22PF | 5% | 50V |
| C662 | 1-163-035-00 | CERAMIC CHIP | 0.047uF | | 50V |
| C663 | 1-163-263-11 | CERAMIC CHIP | 330PF | 5% | 50V |
| C664 | 1-163-263-11 | CERAMIC CHIP | 330PF | 5% | 50V |
| C666 | 1-163-011-11 | CERAMIC CHIP | 0.0015uF | 10% | 50V |
| C667 | 1-164-232-11 | CERAMIC CHIP | 0.01uF | | 50V |

| Ref. No. | Part No. | Description | | | Remark |
|---|---|---|---|---|---|
| C668 | 1-164-232-11 | CERAMIC CHIP | 0.01uF | | 50V |
| C669 | 1-163-141-00 | CERAMIC CHIP | 0.001uF | 5% | 50V |
| C670 | 1-163-141-00 | CERAMIC CHIP | 0.001uF | 5% | 50V |
| C671 | 1-163-037-11 | CERAMIC CHIP | 0.022uF | 10% | 25V |
| C675 | 1-163-088-00 | CERAMIC CHIP | 5PF | | 50V |
| C701 | 1-163-097-00 | CERAMIC CHIP | 15PF | 5% | 50V |
| C702 | 1-163-136-00 | CERAMIC CHIP | 620PF | 5% | 50V |
| C704 | 1-163-120-00 | CERAMIC CHIP | 130PF | 5% | 50V |
| C705 | 1-163-122-00 | CERAMIC CHIP | 160PF | 5% | 50V |
| C706 | 1-163-122-00 | CERAMIC CHIP | 160PF | 5% | 50V |
| C717 | 1-163-038-00 | CERAMIC CHIP | 0.1uF | | 25V |
| C718 | 1-135-161-21 | TANTALUM CHIP | 22uF | 10% | 6.3V |
| C720 | 1-163-037-11 | CERAMIC CHIP | 0.022uF | 10% | 25V |
| C721 | 1-164-232-11 | CERAMIC CHIP | 0.01uF | | 50V |
| C722 | 1-164-232-11 | CERAMIC CHIP | 0.01uF | | 50V |
| C723 | 1-164-232-11 | CERAMIC CHIP | 0.01uF | | 50V |
| C724 | 1-164-232-11 | CERAMIC CHIP | 0.01uF | | 50V |
| C725 | 1-164-232-11 | CERAMIC CHIP | 0.01uF | | 50V |
| C726 | 1-164-232-11 | CERAMIC CHIP | 0.01uF | | 50V |
| C727 | 1-163-037-11 | CERAMIC CHIP | 0.022uF | 10% | 25V |
| C728 | 1-164-232-11 | CERAMIC CHIP | 0.01uF | | 50V |
| C729 | 1-163-251-11 | CERAMIC CHIP | 100PF | 5% | 50V |
| C730 | 1-163-035-00 | CERAMIC CHIP | 0.047uF | | 50V |
| C731 | 1-163-241-11 | CERAMIC CHIP | 39PF | 5% | 50V |
| C732 | 1-163-099-00 | CERAMIC CHIP | 18PF | 5% | 50V |
| C733 | 1-163-035-00 | CERAMIC CHIP | 0.047uF | | 50V |
| C799 | 1-163-035-00 | CERAMIC CHIP | 0.047uF | | 50V |
| C801 | 1-163-141-00 | CERAMIC CHIP | 0.001uF | 5% | 50V |
| C802 | 1-164-232-11 | CERAMIC CHIP | 0.01uF | | 50V |
| C803 | 1-135-161-21 | TANTALUM CHIP | 22uF | 10% | 6.3V |
| C804 | 1-163-037-11 | CERAMIC CHIP | 0.022uF | 10% | 25V |
| C805 | 1-163-118-00 | CERAMIC CHIP | 110PF | 5% | 50V |
| C806 | 1-163-141-00 | CERAMIC CHIP | 0.001uF | 5% | 50V |
| C807 | 1-163-088-00 | CERAMIC CHIP | 5PF | | 50V |
| C808 | 1-163-141-00 | CERAMIC CHIP | 0.001uF | 5% | 50V |
| C809 | 1-164-232-11 | CERAMIC CHIP | 0.01uF | | 50V |
| C810 | 1-163-141-00 | CERAMIC CHIP | 0.001uF | 5% | 50V |
| C811 | 1-163-141-00 | CERAMIC CHIP | 0.001uF | 5% | 50V |
| C812 | 1-135-079-21 | TANTALUM CHIP | 3.3uF | 10% | 35V |
| C815 | 1-135-153-21 | TANTALUM CHIP | 2.2uF | 10% | 20V |
| C816 | 1-163-019-00 | CERAMIC CHIP | 0.0068uF | 10% | 50V |
| C818 | 1-163-121-00 | CERAMIC CHIP | 150PF | 5% | 50V |
| C819 | 1-164-232-11 | CERAMIC CHIP | 0.01uF | | 50V |
| C825 | 1-164-232-11 | CERAMIC CHIP | 0.01uF | | 50V |
| C901 | 1-163-035-00 | CERAMIC CHIP | 0.047uF | | 50V |
| C902 | 1-163-035-00 | CERAMIC CHIP | 0.047uF | | 50V |
| C903 | 1-163-035-00 | CERAMIC CHIP | 0.047uF | | 50V |
| C904 | 1-163-035-00 | CERAMIC CHIP | 0.047uF | | 50V |
| C905 | 1-135-156-21 | TANTALUM CHIP | 6.8uF | 10% | 6.3V |

| Ref. No. | Part No. | Description | | | Remark |
|---|---|---|---|---|---|
| C906 | 1-163-035-00 | CERAMIC CHIP | 0.047uF | | 50V |
| C907 | 1-135-166-21 | TANTALUM CHIP | 47uF | 10% | 10V |
| C908 | 1-163-035-00 | CERAMIC CHIP | 0.047uF | | 50V |

< CONNECTOR >

| Ref. No. | Part No. | Description |
|---|---|---|
| CN101 | 1-566-943-11 | CONNECTOR, BOARD TO BOARD 18P |
| CN102 | 1-566-943-11 | CONNECTOR, BOARD TO BOARD 18P |
| CN911 | 1-506-470-11 | CONNECTOR 5P, MALE |
| CN912 | 1-506-472-11 | CONNECTOR 7P, MALE |
| CN914 | 1-506-473-11 | CONNECTOR 8P, MALE |

< TRIMMER >

| Ref. No. | Part No. | Description |
|---|---|---|
| CV601 | 1-141-311-11 | CAP, TRIMMER 20PF |

< DIODE >

| Ref. No. | Part No. | Description | |
|---|---|---|---|
| D101 | 8-719-400-18 | DIODE | MA152WK |
| D102 | 8-719-400-18 | DIODE | MA152WK |
| D105 | 8-719-800-76 | DIODE | 1SS226 |
| D106 | 8-719-400-18 | DIODE | MA152WK |
| D107 | 8-719-400-18 | DIODE | MA152WK |
| D108 | 8-719-400-18 | DIODE | MA152WK |
| D109 | 8-719-400-18 | DIODE | MA152WK |
| D301 | 8-719-400-18 | DIODE | MA152WK |
| D302 | 8-719-400-18 | DIODE | MA152WK |
| D401 | 8-719-400-18 | DIODE | MA152WK |
| D402 | 8-719-400-18 | DIODE | MA152WK |
| D403 | 8-719-400-18 | DIODE | MA152WK |
| D404 | 8-719-400-18 | DIODE | MA152WK |
| D405 | 8-719-400-18 | DIODE | MA152WK |
| D501 | 8-719-400-18 | DIODE | MA152WK |
| D601 | 8-719-800-76 | DIODE | 1SS226 |
| D602 | 8-719-400-18 | DIODE | MA152WK |
| D603 | 8-719-400-18 | DIODE | MA152WK |
| D604 | 8-719-400-18 | DIODE | MA152WK |
| D605 | 8-719-400-18 | DIODE | MA152WK |
| D801 | 8-719-400-18 | DIODE | MA152WK |
| D802 | 8-719-400-18 | DIODE | MA152WK |
| D804 | 8-719-400-18 | DIODE | MA152WK |
| D821 | 8-719-400-18 | DIODE | MA152WK |
| D822 | 8-719-800-76 | DIODE | 1SS226 |
| D823 | 8-719-800-76 | DIODE | 1SS226 |
| D901 | 8-719-400-18 | DIODE | MA152WK |

< DELAY LINE >

| Ref. No. | Part No. | Description |
|---|---|---|
| DL501 | 1-415-517-21 | DELAY LINE, DUAL 1H-2H |
| DL700 | 1-415-154-00 | DELAY LINE 35nS |

# HK-5

< FILTER >

| Ref. No. | Part No. | Description | Remark |
|---|---|---|---|
| FL301 | 1-236-370-11 | LPF, DEMOD (Y) | |
| FL401 | 1-415-761-11 | DELAY LINE, LC | |
| FL402 | 1-415-760-11 | DELAY LINE, LC | |
| FL801 | 1-235-632-11 | BPF | |
| FL802 | 1-235-633-11 | BPF | |

< IC >

| Ref. No. | Part No. | Description | Remark |
|---|---|---|---|
| IC101 | 8-759-233-94 | IC TA8607F | |
| IC102 | 8-759-925-60 | IC BA401 | |
| IC301 | 8-752-002-XX | IC CX20030 | |
| IC401 | 8-752-031-01 | IC CXA1047M | |
| IC501 | 8-752-003-12 | IC CX20031 | |
| IC601 | 8-752-202-10 | IC CX22021 | |
| IC602 | 8-752-003-22 | IC CX20032 | |
| IC603 | 8-752-305-47 | IC CX23054 | |
| IC604 | 8-759-009-51 | IC MC14538BF | |
| IC702 | 8-759-012-00 | IC MC10H116M | |
| IC703 | 8-752-006-12 | IC CX20061 | |
| IC801 | 8-759-202-67 | IC CX20117 | |
| IC901 | 8-759-925-74 | IC SN74HC04ANS | |
| IC902 | 8-759-925-74 | IC SN74HC04ANS | |

< COIL >

| Ref. No. | Part No. | Description | Remark |
|---|---|---|---|
| L101 | 1-408-974-21 | INDUCTOR 22uH | |
| L102 | 1-410-167-41 | INDUCTOR CHIP 820uH | |
| L103 | 1-408-792-00 | INDUCTOR CHIP 180uH | |
| L104 | 1-408-777-00 | INDUCTOR CHIP 10uH | |
| L105 | 1-408-770-11 | INDUCTOR CHIP 2.7uH | |
| L106 | 1-408-775-21 | INDUCTOR CHIP 6.8uH | |
| L107 | 1-408-775-21 | INDUCTOR CHIP 6.8uH | |
| L108 | 1-408-780-21 | INDUCTOR CHIP 18uH | |
| L109 | 1-408-797-11 | INDUCTOR CHIP 470uH | |
| L111 | 1-408-797-11 | INDUCTOR CHIP 470uH | |
| L112 | 1-408-797-11 | INDUCTOR CHIP 470uH | |
| L113 | 1-408-777-00 | INDUCTOR CHIP 10uH | |
| L114 | 1-408-779-31 | INDUCTOR CHIP 15uH | |
| L115 | 1-408-780-21 | INDUCTOR CHIP 18uH | |
| L201 | 1-408-982-11 | INDUCTOR 100uH | |
| L204 | 1-408-782-11 | INDUCTOR CHIP 27uH | |
| L205 | 1-408-776-00 | INDUCTOR CHIP 8.2uH | |
| L301 | 1-408-790-00 | INDUCTOR CHIP 120uH | |
| L302 | 1-408-789-21 | INDUCTOR CHIP 100uH | |
| L303 | 1-408-777-00 | INDUCTOR CHIP 10uH | |
| L305 | 1-408-779-31 | INDUCTOR CHIP 15uH | |
| L306 | 1-408-782-11 | INDUCTOR CHIP 27uH | |
| L307 | 1-408-779-31 | INDUCTOR CHIP 15uH | |
| L308 | 1-408-783-00 | INDUCTOR CHIP 33uH | |
| L309 | 1-408-970-21 | INDUCTOR 10uH | |
| L310 | 1-408-982-11 | INDUCTOR 100uH | |
| L312 | 1-408-982-11 | INDUCTOR 100uH | |
| L401 | 1-408-782-11 | INDUCTOR CHIP 27uH | |
| L402 | 1-408-970-21 | INDUCTOR 10uH | |
| L501 | 1-408-984-21 | INDUCTOR 150uH | |
| L502 | 1-408-781-00 | INDUCTOR CHIP 22uH | |
| L503 | 1-408-765-21 | INDUCTOR CHIP 1uH | |
| L504 | 1-408-765-21 | INDUCTOR CHIP 1uH | |
| L505 | 1-408-776-00 | INDUCTOR CHIP 8.2uH | |
| L506 | 1-408-982-11 | INDUCTOR 100uH | |
| L510 | 1-408-777-00 | INDUCTOR CHIP 10uH | |
| L601 | 1-408-982-11 | INDUCTOR 100uH | |
| L602 | 1-408-792-00 | INDUCTOR CHIP 180uH | |
| L603 | 1-408-781-00 | INDUCTOR CHIP 22uH | |
| L604 | 1-408-789-21 | INDUCTOR CHIP 100uH | |
| L605 | 1-408-790-00 | INDUCTOR CHIP 120uH | |
| L606 | 1-408-793-21 | INDUCTOR CHIP 220uH | |
| L701 | 1-408-780-21 | INDUCTOR CHIP 18uH | |
| L702 | 1-408-795-21 | INDUCTOR CHIP 330uH | |
| L705 | 1-408-978-21 | INDUCTOR 47uH | |
| L710 | 1-410-476-11 | INDUCTOR 33uH | |
| L801 | 1-408-781-00 | INDUCTOR CHIP 22uH | |
| L802 | 1-408-982-11 | INDUCTOR 100uH | |
| L803 | 1-408-795-21 | INDUCTOR CHIP 330uH | |

< VARIABLE COIL >

| Ref. No. | Part No. | Description | Remark |
|---|---|---|---|
| LV501 | 1-404-594-11 | COIL, VARIABLE | |

< TRANSISTOR >

| Ref. No. | Part No. | Description | Remark |
|---|---|---|---|
| Q101 | 8-729-200-86 | TRANSISTOR 2SC27140 | |
| Q102 | 8-729-901-04 | TRANSISTOR DTA114EK | |
| Q103 | 8-729-200-86 | TRANSISTOR 2SC27140 | |
| Q104 | 8-729-901-01 | TRANSISTOR DTC144EK | |
| Q105 | 8-729-904-07 | TRANSISTOR FMG2 | |
| Q107 | 8-729-201-27 | TRANSISTOR 2SC2715 | |
| Q110 | 8-729-901-01 | TRANSISTOR DTC144EK | |
| Q111 | 8-729-200-86 | TRANSISTOR 2SC27140 | |
| Q112 | 8-729-901-01 | TRANSISTOR DTC144EK | |
| Q113 | 8-729-200-86 | TRANSISTOR 2SC27140 | |
| Q116 | 8-729-201-27 | TRANSISTOR 2SC2715 | |
| Q117 | 8-729-200-86 | TRANSISTOR 2SC27140 | |
| Q118 | 8-729-200-86 | TRANSISTOR 2SC27140 | |
| Q119 | 8-729-200-86 | TRANSISTOR 2SC27140 | |
| Q120 | 8-729-200-86 | TRANSISTOR 2SC27140 | |
| Q121 | 8-729-201-27 | TRANSISTOR 2SC2715 | |
| Q122 | 8-729-901-01 | TRANSISTOR DTC144EK | |
| Q123 | 8-729-901-01 | TRANSISTOR DTC144EK | |
| Q124 | 8-729-901-06 | TRANSISTOR DTA144EK | |
| Q125 | 8-729-901-01 | TRANSISTOR DTC144EK | |

| Ref. No. | Part No. | Description | Remark |
|---|---|---|---|
| Q126 | 8-729-201-27 | TRANSISTOR 2SC2715 | |
| Q127 | 8-729-201-27 | TRANSISTOR 2SC2715 | |
| Q128 | 8-729-202-38 | TRANSISTOR 2SC3326N | |
| Q129 | 8-729-201-27 | TRANSISTOR 2SC2715 | |
| Q130 | 8-729-201-27 | TRANSISTOR 2SC2715 | |
| Q131 | 8-729-216-22 | TRANSISTOR 2SA1162 | |
| Q132 | 8-729-201-27 | TRANSISTOR 2SC2715 | |
| Q181 | 8-729-907-46 | TRANSISTOR IMZ1 | |
| Q182 | 8-729-903-10 | TRANSISTOR FMW1 | |
| Q183 | 8-729-200-86 | TRANSISTOR 2SC27140 | |
| Q184 | 8-729-216-22 | TRANSISTOR 2SA1162 | |
| Q209 | 8-729-200-86 | TRANSISTOR 2SC27140 | |
| Q210 | 8-729-200-86 | TRANSISTOR 2SC27140 | |
| Q211 | 8-729-200-86 | TRANSISTOR 2SC27140 | |
| Q212 | 8-729-901-01 | TRANSISTOR DTC144EK | |
| Q213 | 8-729-901-06 | TRANSISTOR DTA144EK | |
| Q214 | 8-729-200-86 | TRANSISTOR 2SC27140 | |
| Q215 | 8-729-902-96 | TRANSISTOR FMS1 | |
| Q217 | 8-729-200-86 | TRANSISTOR 2SC27140 | |
| Q218 | 8-729-200-86 | TRANSISTOR 2SC27140 | |
| Q301 | 8-729-201-27 | TRANSISTOR 2SC2715 | |
| Q302 | 8-729-201-27 | TRANSISTOR 2SC2715 | |
| Q305 | 8-729-201-27 | TRANSISTOR 2SC2715 | |
| Q306 | 8-729-201-27 | TRANSISTOR 2SC2715 | |
| Q307 | 8-729-201-27 | TRANSISTOR 2SC2715 | |
| Q309 | 8-729-201-27 | TRANSISTOR 2SC2715 | |
| Q310 | 8-729-201-27 | TRANSISTOR 2SC2715 | |
| Q311 | 8-729-201-27 | TRANSISTOR 2SC2715 | |
| Q312 | 8-729-901-06 | TRANSISTOR DTA144EK | |
| Q313 | 8-729-216-22 | TRANSISTOR 2SA1162 | |
| Q314 | 8-729-201-27 | TRANSISTOR 2SC2715 | |
| Q315 | 8-729-201-27 | TRANSISTOR 2SC2715 | |
| Q316 | 8-729-901-01 | TRANSISTOR DTC144EK | |
| Q317 | 8-729-201-27 | TRANSISTOR 2SC2715 | |
| Q318 | 8-729-901-06 | TRANSISTOR DTA144EK | |
| Q319 | 8-729-201-27 | TRANSISTOR 2SC2715 | |
| Q320 | 8-729-901-01 | TRANSISTOR DTC144EK | |
| Q321 | 8-729-901-01 | TRANSISTOR DTC144EK | |
| Q322 | 8-729-216-22 | TRANSISTOR 2SA1162 | |
| Q323 | 8-729-901-01 | TRANSISTOR DTC144EK | |
| Q324 | 8-729-901-01 | TRANSISTOR DTC144EK | |
| Q325 | 8-729-901-06 | TRANSISTOR DTA144EK | |
| Q326 | 8-729-901-06 | TRANSISTOR DTA144EK | |
| Q327 | 8-729-201-27 | TRANSISTOR 2SC2715 | |
| Q328 | 8-729-201-27 | TRANSISTOR 2SC2715 | |
| Q330 | 8-729-901-06 | TRANSISTOR DTA144EK | |
| Q389 | 8-729-201-27 | TRANSISTOR 2SC2715 | |
| Q401 | 8-729-201-27 | TRANSISTOR 2SC2715 | |
| Q402 | 8-729-201-27 | TRANSISTOR 2SC2715 | |

| Ref. No. | Part No. | Description | Remark |
|---|---|---|---|
| Q403 | 8-729-901-01 | TRANSISTOR DTC144EK | |
| Q404 | 8-729-901-01 | TRANSISTOR DTC144EK | |
| Q405 | 8-729-901-06 | TRANSISTOR DTA144EK | |
| Q406 | 8-729-201-27 | TRANSISTOR 2SC2715 | |
| Q407 | 8-729-216-22 | TRANSISTOR 2SA1162 | |
| Q408 | 8-729-216-22 | TRANSISTOR 2SA1162 | |
| Q409 | 8-729-201-27 | TRANSISTOR 2SC2715 | |
| Q410 | 8-729-216-22 | TRANSISTOR 2SA1162 | |
| Q411 | 8-729-901-01 | TRANSISTOR DTC144EK | |
| Q412 | 8-729-901-01 | TRANSISTOR DTC144EK | |
| Q413 | 8-729-901-01 | TRANSISTOR DTC144EK | |
| Q414 | 8-729-201-27 | TRANSISTOR 2SC2715 | |
| Q415 | 8-729-216-22 | TRANSISTOR 2SA1162 | |
| Q416 | 8-729-216-22 | TRANSISTOR 2SA1162 | |
| Q417 | 8-729-901-01 | TRANSISTOR DTC144EK | |
| Q418 | 8-729-201-27 | TRANSISTOR 2SC2715 | |
| Q419 | 8-729-201-27 | TRANSISTOR 2SC2715 | |
| Q420 | 8-729-202-38 | TRANSISTOR 2SC3326N | |
| Q421 | 8-729-202-38 | TRANSISTOR 2SC3326N | |
| Q422 | 8-729-201-27 | TRANSISTOR 2SC2715 | |
| Q423 | 8-729-201-27 | TRANSISTOR 2SC2715 | |
| Q424 | 8-729-901-01 | TRANSISTOR DTC144EK | |
| Q425 | 8-729-201-27 | TRANSISTOR 2SC2715 | |
| Q426 | 8-729-201-27 | TRANSISTOR 2SC2715 | |
| Q427 | 8-729-216-22 | TRANSISTOR 2SA1162 | |
| Q428 | 8-729-216-22 | TRANSISTOR 2SA1162 | |
| Q429 | 8-729-901-01 | TRANSISTOR DTC144EK | |
| Q430 | 8-729-901-01 | TRANSISTOR DTC144EK | |
| Q431 | 8-729-216-22 | TRANSISTOR 2SA1162 | |
| Q501 | 8-729-901-06 | TRANSISTOR DTA144EK | |
| Q502 | 8-729-901-01 | TRANSISTOR DTC144EK | |
| Q503 | 8-729-901-00 | TRANSISTOR DTC124EK | |
| Q504 | 8-729-201-27 | TRANSISTOR 2SC2715 | |
| Q601 | 8-729-901-01 | TRANSISTOR DTC144EK | |
| Q603 | 8-729-901-01 | TRANSISTOR DTC144EK | |
| Q604 | 8-729-201-27 | TRANSISTOR 2SC2715 | |
| Q605 | 8-729-201-27 | TRANSISTOR 2SC2715 | |
| Q606 | 8-729-901-01 | TRANSISTOR DTC144EK | |
| Q607 | 8-729-201-27 | TRANSISTOR 2SC2715 | |
| Q608 | 8-729-216-22 | TRANSISTOR 2SA1162 | |
| Q609 | 8-729-901-00 | TRANSISTOR DTC124EK | |
| Q610 | 8-729-904-04 | TRANSISTOR FMS2 | |
| Q611 | 8-729-201-27 | TRANSISTOR 2SC2715 | |
| Q612 | 8-729-201-27 | TRANSISTOR 2SC2715 | |
| Q613 | 8-729-901-01 | TRANSISTOR DTC144EK | |
| Q701 | 8-729-201-27 | TRANSISTOR 2SC2715 | |
| Q702 | 8-729-202-38 | TRANSISTOR 2SC3326N | |
| Q703 | 8-729-202-38 | TRANSISTOR 2SC3326N | |
| Q704 | 8-729-216-22 | TRANSISTOR 2SA1162 | |

## HK-5

| Ref. No. | Part No. | Description | | | | Remark |
|---|---|---|---|---|---|---|
| Q706 | 8-729-201-27 | TRANSISTOR | 2SC2715 | | | |
| Q707 | 8-729-201-27 | TRANSISTOR | 2SC2715 | | | |
| Q710 | 8-729-901-01 | TRANSISTOR | DTC144EK | | | |
| Q711 | 8-729-901-01 | TRANSISTOR | DTC144EK | | | |
| Q712 | 8-729-901-01 | TRANSISTOR | DTC144EK | | | |
| Q720 | 8-729-200-86 | TRANSISTOR | 2SC27140 | | | |
| Q721 | 8-729-200-86 | TRANSISTOR | 2SC27140 | | | |
| Q722 | 8-729-200-86 | TRANSISTOR | 2SC27140 | | | |
| Q723 | 8-729-201-27 | TRANSISTOR | 2SC2715 | | | |
| Q724 | 8-729-901-01 | TRANSISTOR | DTC144EK | | | |
| Q801 | 8-729-920-08 | TRANSISTOR | DTC124TK-T146 | | | |
| Q802 | 8-729-201-27 | TRANSISTOR | 2SC2715 | | | |
| Q803 | 8-729-201-27 | TRANSISTOR | 2SC2715 | | | |
| Q804 | 8-729-201-27 | TRANSISTOR | 2SC2715 | | | |
| Q805 | 8-729-216-22 | TRANSISTOR | 2SA1162 | | | |
| Q811 | 8-729-901-01 | TRANSISTOR | DTC144EK | | | |
| Q901 | 8-729-901-01 | TRANSISTOR | DTC144EK | | | |
| Q902 | 8-729-901-01 | TRANSISTOR | DTC144EK | | | |
| Q903 | 8-729-104-25 | TRANSISTOR | 2SB804-AV | | | |
| Q904 | 8-729-201-27 | TRANSISTOR | 2SC2715 | | | |
| | | < RESISTOR > | | | | |
| R101 | 1-216-049-00 | METAL CHIP | 1K | 5% | 1/10W | |
| R102 | 1-216-029-00 | METAL CHIP | 150 | 5% | 1/10W | |
| R103 | 1-216-073-00 | METAL CHIP | 10K | 5% | 1/10W | |
| R104 | 1-216-073-00 | METAL CHIP | 10K | 5% | 1/10W | |
| R105 | 1-216-037-00 | METAL CHIP | 330 | 5% | 1/10W | |
| R106 | 1-216-041-00 | METAL CHIP | 470 | 5% | 1/10W | |
| R107 | 1-216-035-00 | METAL CHIP | 270 | 5% | 1/10W | |
| R108 | 1-216-043-00 | METAL CHIP | 560 | 5% | 1/10W | |
| R109 | 1-216-081-00 | METAL CHIP | 22K | 5% | 1/10W | |
| R110 | 1-216-081-00 | METAL CHIP | 22K | 5% | 1/10W | |
| R111 | 1-216-045-00 | METAL CHIP | 680 | 5% | 1/10W | |
| R112 | 1-216-041-00 | METAL CHIP | 470 | 5% | 1/10W | |
| R113 | 1-216-041-00 | METAL CHIP | 470 | 5% | 1/10W | |
| R115 | 1-216-639-11 | METAL CHIP | 330 | 0.5% | 1/10W | |
| R116 | 1-216-639-11 | METAL CHIP | 330 | 0.5% | 1/10W | |
| R117 | 1-249-401-11 | CARBON | 47 | 5% | 1/4W | |
| R119 | 1-216-073-00 | METAL CHIP | 10K | 5% | 1/10W | |
| R120 | 1-216-073-00 | METAL CHIP | 10K | 5% | 1/10W | |
| R122 | 1-216-057-00 | METAL CHIP | 2.2K | 5% | 1/10W | |
| R124 | 1-216-049-00 | METAL CHIP | 1K | 5% | 1/10W | |
| R125 | 1-216-073-00 | METAL CHIP | 10K | 5% | 1/10W | |
| R126 | 1-216-073-00 | METAL CHIP | 10K | 5% | 1/10W | |
| R127 | 1-216-049-00 | METAL CHIP | 1K | 5% | 1/10W | |
| R128 | 1-216-041-00 | METAL CHIP | 470 | 5% | 1/10W | |
| R130 | 1-216-033-00 | METAL CHIP | 220 | 5% | 1/10W | |
| R137 | 1-216-033-00 | METAL CHIP | 220 | 5% | 1/10W | |
| R139 | 1-216-295-00 | METAL CHIP | 0 | 5% | 1/10W | |
| R140 | 1-216-053-00 | METAL CHIP | 1.5K | 5% | 1/10W | |
| R141 | 1-216-075-00 | METAL CHIP | 12K | 5% | 1/10W | |
| R142 | 1-216-748-11 | METAL CHIP | 39K | 5% | 1/10W | |
| R143 | 1-216-039-00 | METAL CHIP | 390 | 5% | 1/10W | |
| R144 | 1-216-045-00 | METAL CHIP | 680 | 5% | 1/10W | |
| R145 | 1-216-049-00 | METAL CHIP | 1K | 5% | 1/10W | |
| R146 | 1-216-645-11 | METAL CHIP | 560 | 0.5% | 1/10W | |
| R147 | 1-216-081-00 | METAL CHIP | 22K | 5% | 1/10W | |
| R148 | 1-216-081-00 | METAL CHIP | 22K | 5% | 1/10W | |
| R149 | 1-216-049-00 | METAL CHIP | 1K | 5% | 1/10W | |
| R150 | 1-216-047-00 | METAL CHIP | 820 | 5% | 1/10W | |
| R151 | 1-216-049-00 | METAL CHIP | 1K | 5% | 1/10W | |
| R153 | 1-216-073-00 | METAL CHIP | 10K | 5% | 1/10W | |
| R154 | 1-216-073-00 | METAL CHIP | 10K | 5% | 1/10W | |
| R155 | 1-216-049-00 | METAL CHIP | 1K | 5% | 1/10W | |
| R157 | 1-216-069-00 | METAL CHIP | 6.8K | 5% | 1/10W | |
| R158 | 1-216-083-00 | METAL CHIP | 27K | 5% | 1/10W | |
| R159 | 1-216-025-00 | METAL CHIP | 100 | 5% | 1/10W | |
| R160 | 1-216-643-11 | METAL CHIP | 470 | 0.5% | 1/10W | |
| R161 | 1-216-295-00 | METAL CHIP | 0 | 5% | 1/10W | |
| R162 | 1-216-045-00 | METAL CHIP | 680 | 5% | 1/10W | |
| R163 | 1-216-073-00 | METAL CHIP | 10K | 5% | 1/10W | |
| R164 | 1-216-073-00 | METAL CHIP | 10K | 5% | 1/10W | |
| R165 | 1-216-069-00 | METAL CHIP | 6.8K | 5% | 1/10W | |
| R166 | 1-216-061-00 | METAL CHIP | 3.3K | 5% | 1/10W | |
| R167 | 1-216-041-00 | METAL CHIP | 470 | 5% | 1/10W | |
| R168 | 1-216-073-00 | METAL CHIP | 10K | 5% | 1/10W | |
| R169 | 1-216-049-00 | METAL CHIP | 1K | 5% | 1/10W | |
| R170 | 1-216-097-00 | METAL CHIP | 100K | 5% | 1/10W | |
| R171 | 1-216-748-11 | METAL CHIP | 39K | 5% | 1/10W | |
| R173 | 1-216-097-00 | METAL CHIP | 100K | 5% | 1/10W | |
| R174 | 1-216-748-11 | METAL CHIP | 39K | 5% | 1/10W | |
| R175 | 1-216-097-00 | METAL CHIP | 100K | 5% | 1/10W | |
| R176 | 1-216-073-00 | METAL CHIP | 10K | 5% | 1/10W | |
| R177 | 1-216-081-00 | METAL CHIP | 22K | 5% | 1/10W | |
| R178 | 1-216-083-00 | METAL CHIP | 27K | 5% | 1/10W | |
| R179 | 1-216-081-00 | METAL CHIP | 22K | 5% | 1/10W | |
| R180 | 1-216-077-00 | METAL CHIP | 15K | 5% | 1/10W | |
| R181 | 1-216-085-00 | METAL CHIP | 33K | 5% | 1/10W | |
| R182 | 1-216-073-00 | METAL CHIP | 10K | 5% | 1/10W | |
| R183 | 1-216-067-00 | METAL CHIP | 5.6K | 5% | 1/10W | |
| R184 | 1-216-055-00 | METAL CHIP | 1.8K | 5% | 1/10W | |
| R185 | 1-216-073-00 | METAL CHIP | 10K | 5% | 1/10W | |
| R186 | 1-216-065-00 | METAL CHIP | 4.7K | 5% | 1/10W | |
| R187 | 1-216-081-00 | METAL CHIP | 22K | 5% | 1/10W | |
| R189 | 1-216-077-00 | METAL CHIP | 15K | 5% | 1/10W | |
| R190 | 1-216-057-00 | METAL CHIP | 2.2K | 5% | 1/10W | |
| R191 | 1-216-071-00 | METAL CHIP | 8.2K | 5% | 1/10W | |

| Ref. No. | Part No. | Description | | | | Remark |
|---|---|---|---|---|---|---|
| R192 | 1-216-037-00 | METAL CHIP | 330 | 5% | 1/10W | |
| R193 | 1-216-057-00 | METAL CHIP | 2.2K | 5% | 1/10W | |
| R195 | 1-216-748-11 | METAL CHIP | 39K | 5% | 1/10W | |
| R196 | 1-216-089-00 | METAL CHIP | 47K | 5% | 1/10W | |
| R197 | 1-216-041-00 | METAL CHIP | 470 | 5% | 1/10W | |
| R198 | 1-216-049-00 | METAL CHIP | 1K | 5% | 1/10W | |
| R199 | 1-216-045-00 | METAL CHIP | 680 | 5% | 1/10W | |
| R200 | 1-216-089-00 | METAL CHIP | 47K | 5% | 1/10W | |
| R201 | 1-216-641-11 | METAL CHIP | 390 | 0.5% | 1/10W | |
| R202 | 1-216-627-11 | METAL CHIP | 100 | 0.5% | 1/10W | |
| R213 | 1-216-035-00 | METAL CHIP | 270 | 5% | 1/10W | |
| R214 | 1-216-041-00 | METAL CHIP | 470 | 5% | 1/10W | |
| R215 | 1-216-041-00 | METAL CHIP | 470 | 5% | 1/10W | |
| R216 | 1-216-081-00 | METAL CHIP | 22K | 5% | 1/10W | |
| R217 | 1-216-081-00 | METAL CHIP | 22K | 5% | 1/10W | |
| R218 | 1-216-041-00 | METAL CHIP | 470 | 5% | 1/10W | |
| R219 | 1-216-051-00 | METAL CHIP | 1.2K | 5% | 1/10W | |
| R220 | 1-216-041-00 | METAL CHIP | 470 | 5% | 1/10W | |
| R221 | 1-216-041-00 | METAL CHIP | 470 | 5% | 1/10W | |
| R222 | 1-216-295-00 | METAL CHIP | 0 | 5% | 1/10W | |
| R223 | 1-216-041-00 | METAL CHIP | 470 | 5% | 1/10W | |
| R224 | 1-216-041-00 | METAL CHIP | 470 | 5% | 1/10W | |
| R225 | 1-216-065-00 | METAL CHIP | 4.7K | 5% | 1/10W | |
| R226 | 1-216-073-00 | METAL CHIP | 10K | 5% | 1/10W | |
| R227 | 1-216-077-00 | METAL CHIP | 15K | 5% | 1/10W | |
| R228 | 1-216-053-00 | METAL CHIP | 1.5K | 5% | 1/10W | |
| R229 | 1-216-049-00 | METAL CHIP | 1K | 5% | 1/10W | |
| R230 | 1-216-047-00 | METAL CHIP | 820 | 5% | 1/10W | |
| R231 | 1-216-069-00 | METAL CHIP | 6.8K | 5% | 1/10W | |
| R232 | 1-216-049-00 | METAL CHIP | 1K | 5% | 1/10W | |
| R233 | 1-216-064-00 | METAL CHIP | 4.3K | 5% | 1/10W | |
| R234 | 1-216-041-00 | METAL CHIP | 470 | 5% | 1/10W | |
| R235 | 1-216-057-00 | METAL CHIP | 2.2K | 5% | 1/10W | |
| R236 | 1-216-089-00 | METAL CHIP | 47K | 5% | 1/10W | |
| R237 | 1-216-089-00 | METAL CHIP | 47K | 5% | 1/10W | |
| R238 | 1-216-057-00 | METAL CHIP | 2.2K | 5% | 1/10W | |
| R239 | 1-216-089-00 | METAL CHIP | 47K | 5% | 1/10W | |
| R240 | 1-216-089-00 | METAL CHIP | 47K | 5% | 1/10W | |
| R241 | 1-216-041-00 | METAL CHIP | 470 | 5% | 1/10W | |
| R242 | 1-216-295-00 | METAL CHIP | 0 | 5% | 1/10W | |
| R243 | 1-216-643-11 | METAL CHIP | 470 | 0.5% | 1/10W | |
| R244 | 1-216-673-11 | METAL CHIP | 8.2K | 0.5% | 1/10W | |
| R245 | 1-216-043-00 | METAL CHIP | 560 | 5% | 1/10W | |
| R247 | 1-216-041-00 | METAL CHIP | 470 | 5% | 1/10W | |
| R252 | 1-216-047-00 | METAL CHIP | 820 | 5% | 1/10W | |
| R301 | 1-216-049-00 | METAL CHIP | 1K | 5% | 1/10W | |
| R302 | 1-216-651-11 | METAL CHIP | 1K | 0.5% | 1/10W | |
| R303 | 1-216-659-11 | METAL CHIP | 2.2K | 0.5% | 1/10W | |
| R304 | 1-216-673-11 | METAL CHIP | 8.2K | 0.5% | 1/10W | |
| R305 | 1-216-677-11 | METAL CHIP | 12K | 0.5% | 1/10W | |
| R306 | 1-216-049-00 | METAL CHIP | 1K | 5% | 1/10W | |
| R307 | 1-216-049-00 | METAL CHIP | 1K | 5% | 1/10W | |
| R308 | 1-216-295-00 | METAL CHIP | 0 | 5% | 1/10W | |
| R309 | 1-216-295-00 | METAL CHIP | 0 | 5% | 1/10W | |
| R310 | 1-216-033-00 | METAL CHIP | 220 | 5% | 1/10W | |
| R311 | 1-216-033-00 | METAL CHIP | 220 | 5% | 1/10W | |
| R313 | 1-216-633-11 | METAL CHIP | 180 | 0.5% | 1/10W | |
| R314 | 1-216-033-00 | METAL CHIP | 220 | 5% | 1/10W | |
| R315 | 1-216-057-00 | METAL CHIP | 2.2K | 5% | 1/10W | |
| R316 | 1-216-673-11 | METAL CHIP | 8.2K | 0.5% | 1/10W | |
| R317 | 1-216-670-11 | METAL CHIP | 6.2K | 0.5% | 1/10W | |
| R318 | 1-216-033-00 | METAL CHIP | 220 | 5% | 1/10W | |
| R320 | 1-216-033-00 | METAL CHIP | 220 | 5% | 1/10W | |
| R321 | 1-216-032-00 | METAL CHIP | 200 | 5% | 1/10W | |
| R323 | 1-216-643-11 | METAL CHIP | 470 | 0.5% | 1/10W | |
| R324 | 1-216-075-00 | METAL CHIP | 12K | 5% | 1/10W | |
| R325 | 1-216-075-00 | METAL CHIP | 12K | 5% | 1/10W | |
| R326 | 1-216-033-00 | METAL CHIP | 220 | 5% | 1/10W | |
| R327 | 1-216-033-00 | METAL CHIP | 220 | 5% | 1/10W | |
| R329 | 1-216-653-11 | METAL CHIP | 1.2K | 0.5% | 1/10W | |
| R330 | 1-216-045-00 | METAL CHIP | 680 | 5% | 1/10W | |
| R331 | 1-216-039-00 | METAL CHIP | 390 | 5% | 1/10W | |
| R332 | 1-216-645-11 | METAL CHIP | 560 | 0.5% | 1/10W | |
| R333 | 1-216-623-11 | METAL CHIP | 68 | 0.5% | 1/10W | |
| R334 | 1-216-073-00 | METAL CHIP | 10K | 5% | 1/10W | |
| R335 | 1-216-073-00 | METAL CHIP | 10K | 5% | 1/10W | |
| R336 | 1-216-049-00 | METAL CHIP | 1K | 5% | 1/10W | |
| R337 | 1-216-075-00 | METAL CHIP | 12K | 5% | 1/10W | |
| R338 | 1-216-075-00 | METAL CHIP | 12K | 5% | 1/10W | |
| R339 | 1-216-057-00 | METAL CHIP | 2.2K | 5% | 1/10W | |
| R340 | 1-216-653-11 | METAL CHIP | 1.2K | 0.5% | 1/10W | |
| R341 | 1-216-641-11 | METAL CHIP | 390 | 0.5% | 1/10W | |
| R342 | 1-216-049-00 | METAL CHIP | 1K | 5% | 1/10W | |
| R343 | 1-216-049-00 | METAL CHIP | 1K | 5% | 1/10W | |
| R344 | 1-216-099-00 | METAL CHIP | 120K | 5% | 1/10W | |
| R345 | 1-216-113-00 | METAL CHIP | 470K | 5% | 1/10W | |
| R346 | 1-216-075-00 | METAL CHIP | 12K | 5% | 1/10W | |
| R347 | 1-216-081-00 | METAL CHIP | 22K | 5% | 1/10W | |
| R348 | 1-216-085-00 | METAL CHIP | 33K | 5% | 1/10W | |
| R349 | 1-216-077-00 | METAL CHIP | 15K | 5% | 1/10W | |
| R350 | 1-216-055-00 | METAL CHIP | 1.8K | 5% | 1/10W | |
| R351 | 1-216-077-00 | METAL CHIP | 15K | 5% | 1/10W | |
| R353 | 1-216-097-00 | METAL CHIP | 100K | 5% | 1/10W | |
| R354 | 1-216-109-00 | METAL CHIP | 330K | 5% | 1/10W | |
| R355 | 1-216-047-00 | METAL CHIP | 820 | 5% | 1/10W | |
| R356 | 1-216-081-00 | METAL CHIP | 22K | 5% | 1/10W | |
| R357 | 1-216-081-00 | METAL CHIP | 22K | 5% | 1/10W | |
| R358 | 1-216-089-00 | METAL CHIP | 47K | 5% | 1/10W | |

## HK-5

| Ref. No. | Part No. | Description | | | | Remark |
|---|---|---|---|---|---|---|
| R359 | 1-216-049-00 | METAL CHIP | 1K | 5% | 1/10W | |
| R360 | 1-216-083-00 | METAL CHIP | 27K | 5% | 1/10W | |
| R361 | 1-216-091-00 | METAL CHIP | 56K | 5% | 1/10W | |
| R362 | 1-216-093-00 | METAL CHIP | 68K | 5% | 1/10W | |
| R363 | 1-216-073-00 | METAL CHIP | 10K | 5% | 1/10W | |
| R364 | 1-216-097-00 | METAL CHIP | 100K | 5% | 1/10W | |
| R365 | 1-216-667-11 | METAL CHIP | 4.7K | 0.5% | 1/10W | |
| R366 | 1-216-089-00 | METAL CHIP | 47K | 5% | 1/10W | |
| R367 | 1-216-091-00 | METAL CHIP | 56K | 5% | 1/10W | |
| R368 | 1-216-081-00 | METAL CHIP | 22K | 5% | 1/10W | |
| R369 | 1-216-081-00 | METAL CHIP | 22K | 5% | 1/10W | |
| R370 | 1-216-081-00 | METAL CHIP | 22K | 5% | 1/10W | |
| R371 | 1-216-295-00 | METAL CHIP | 0 | 5% | 1/10W | |
| R373 | 1-216-101-00 | METAL CHIP | 150K | 5% | 1/10W | |
| R374 | 1-216-049-00 | METAL CHIP | 1K | 5% | 1/10W | |
| R376 | 1-216-057-00 | METAL CHIP | 2.2K | 5% | 1/10W | |
| R377 | 1-216-033-00 | METAL CHIP | 220 | 5% | 1/10W | |
| R378 | 1-216-031-00 | METAL CHIP | 180 | 5% | 1/10W | |
| R379 | 1-216-039-00 | METAL CHIP | 390 | 5% | 1/10W | |
| R380 | 1-216-029-00 | METAL CHIP | 150 | 5% | 1/10W | |
| R381 | 1-216-295-00 | METAL CHIP | 0 | 5% | 1/10W | |
| R382 | 1-216-295-00 | METAL CHIP | 0 | 5% | 1/10W | |
| R383 | 1-216-295-00 | METAL CHIP | 0 | 5% | 1/10W | |
| R384 | 1-216-025-00 | METAL CHIP | 100 | 5% | 1/10W | |
| R386 | 1-216-033-00 | METAL CHIP | 220 | 5% | 1/10W | |
| R387 | 1-216-295-00 | METAL CHIP | 0 | 5% | 1/10W | |
| R388 | 1-216-049-00 | METAL CHIP | 1K | 5% | 1/10W | |
| R389 | 1-216-075-00 | METAL CHIP | 12K | 5% | 1/10W | |
| R390 | 1-216-075-00 | METAL CHIP | 12K | 5% | 1/10W | |
| R401 | 1-216-053-00 | METAL CHIP | 1.5K | 5% | 1/10W | |
| R402 | 1-216-049-00 | METAL CHIP | 1K | 5% | 1/10W | |
| R403 | 1-216-667-11 | METAL CHIP | 4.7K | 0.5% | 1/10W | |
| R404 | 1-216-654-11 | METAL CHIP | 1.3K | 0.5% | 1/10W | |
| R405 | 1-216-057-00 | METAL CHIP | 2.2K | 5% | 1/10W | |
| R406 | 1-216-033-00 | METAL CHIP | 220 | 5% | 1/10W | |
| R407 | 1-216-033-00 | METAL CHIP | 220 | 5% | 1/10W | |
| R408 | 1-216-295-00 | METAL CHIP | 0 | 5% | 1/10W | |
| R409 | 1-216-653-11 | METAL CHIP | 1.2K | 0.5% | 1/10W | |
| R411 | 1-216-037-00 | METAL CHIP | 330 | 5% | 1/10W | |
| R412 | 1-216-073-00 | METAL CHIP | 10K | 5% | 1/10W | |
| R413 | 1-216-109-00 | METAL CHIP | 330K | 5% | 1/10W | |
| R414 | 1-216-081-00 | METAL CHIP | 22K | 5% | 1/10W | |
| R415 | 1-216-097-00 | METAL CHIP | 100K | 5% | 1/10W | |
| R416 | 1-216-079-00 | METAL CHIP | 18K | 5% | 1/10W | |
| R417 | 1-216-069-00 | METAL CHIP | 6.8K | 5% | 1/10W | |
| R418 | 1-216-041-00 | METAL CHIP | 470 | 5% | 1/10W | |
| R419 | 1-216-061-00 | METAL CHIP | 3.3K | 5% | 1/10W | |
| R420 | 1-216-059-00 | METAL CHIP | 2.7K | 5% | 1/10W | |

| Ref. No. | Part No. | Description | | | | Remark |
|---|---|---|---|---|---|---|
| R421 | 1-216-059-00 | METAL CHIP | 2.7K | 5% | 1/10W | |
| R422 | 1-216-051-00 | METAL CHIP | 1.2K | 5% | 1/10W | |
| R423 | 1-216-049-00 | METAL CHIP | 1K | 5% | 1/10W | |
| R424 | 1-216-059-00 | METAL CHIP | 2.7K | 5% | 1/10W | |
| R425 | 1-216-049-00 | METAL CHIP | 1K | 5% | 1/10W | |
| R426 | 1-216-053-00 | METAL CHIP | 1.5K | 5% | 1/10W | |
| R427 | 1-216-045-00 | METAL CHIP | 680 | 5% | 1/10W | |
| R428 | 1-216-748-11 | METAL CHIP | 39K | 5% | 1/10W | |
| R429 | 1-216-075-00 | METAL CHIP | 12K | 5% | 1/10W | |
| R430 | 1-216-055-00 | METAL CHIP | 1.8K | 5% | 1/10W | |
| R431 | 1-216-065-00 | METAL CHIP | 4.7K | 5% | 1/10W | |
| R432 | 1-216-081-00 | METAL CHIP | 22K | 5% | 1/10W | |
| R433 | 1-216-097-00 | METAL CHIP | 100K | 5% | 1/10W | |
| R434 | 1-216-057-00 | METAL CHIP | 2.2K | 5% | 1/10W | |
| R435 | 1-216-693-11 | METAL CHIP | 56K | 0.5% | 1/10W | |
| R436 | 1-216-663-11 | METAL CHIP | 3.3K | 0.5% | 1/10W | |
| R437 | 1-216-667-11 | METAL CHIP | 4.7K | 0.5% | 1/10W | |
| R438 | 1-216-651-11 | METAL CHIP | 1K | 0.5% | 1/10W | |
| R439 | 1-216-666-11 | METAL CHIP | 4.3K | 0.5% | 1/10W | |
| R440 | 1-216-103-00 | METAL CHIP | 180K | 5% | 1/10W | |
| R441 | 1-216-666-11 | METAL CHIP | 4.3K | 0.5% | 1/10W | |
| R442 | 1-216-065-00 | METAL CHIP | 4.7K | 5% | 1/10W | |
| R443 | 1-216-075-00 | METAL CHIP | 12K | 5% | 1/10W | |
| R444 | 1-216-071-00 | METAL CHIP | 8.2K | 5% | 1/10W | |
| R445 | 1-216-295-00 | METAL CHIP | 0 | 5% | 1/10W | |
| R446 | 1-216-665-11 | METAL CHIP | 3.9K | 0.5% | 1/10W | |
| R447 | 1-216-679-11 | METAL CHIP | 15K | 0.5% | 1/10W | |
| R448 | 1-216-057-00 | METAL CHIP | 2.2K | 5% | 1/10W | |
| R449 | 1-216-077-00 | METAL CHIP | 15K | 5% | 1/10W | |
| R450 | 1-216-081-00 | METAL CHIP | 22K | 5% | 1/10W | |
| R451 | 1-216-643-11 | METAL CHIP | 470 | 0.5% | 1/10W | |
| R452 | 1-216-643-11 | METAL CHIP | 470 | 0.5% | 1/10W | |
| R453 | 1-216-659-11 | METAL CHIP | 2.2K | 0.5% | 1/10W | |
| R454 | 1-216-663-11 | METAL CHIP | 3.3K | 0.5% | 1/10W | |
| R455 | 1-216-653-11 | METAL CHIP | 1.2K | 0.5% | 1/10W | |
| R456 | 1-216-083-00 | METAL CHIP | 27K | 5% | 1/10W | |
| R457 | 1-216-081-00 | METAL CHIP | 22K | 5% | 1/10W | |
| R458 | 1-216-047-00 | METAL CHIP | 820 | 5% | 1/10W | |
| R459 | 1-216-039-00 | METAL CHIP | 390 | 5% | 1/10W | |
| R460 | 1-216-033-00 | METAL CHIP | 220 | 5% | 1/10W | |
| R462 | 1-216-049-00 | METAL CHIP | 1K | 5% | 1/10W | |
| R463 | 1-216-073-00 | METAL CHIP | 10K | 5% | 1/10W | |
| R464 | 1-216-089-00 | METAL CHIP | 47K | 5% | 1/10W | |
| R465 | 1-216-089-00 | METAL CHIP | 47K | 5% | 1/10W | |
| R466 | 1-216-643-11 | METAL CHIP | 470 | 0.5% | 1/10W | |
| R467 | 1-216-641-11 | METAL CHIP | 390 | 0.5% | 1/10W | |
| R468 | 1-216-089-00 | METAL CHIP | 47K | 5% | 1/10W | |
| R469 | 1-216-089-00 | METAL CHIP | 47K | 5% | 1/10W | |
| R470 | 1-216-073-00 | METAL CHIP | 10K | 5% | 1/10W | |

| Ref. No. | Part No. | Description | | | | Remark |
|---|---|---|---|---|---|---|
| R471 | 1-216-057-00 | METAL CHIP | 2.2K | 5% | 1/10W | |
| R472 | 1-216-041-00 | METAL CHIP | 470 | 5% | 1/10W | |
| R473 | 1-216-049-00 | METAL CHIP | 1K | 5% | 1/10W | |
| R474 | 1-216-049-00 | METAL CHIP | 1K | 5% | 1/10W | |
| R475 | 1-216-058-00 | METAL GLAZE | 2.4K | 5% | 1/10W | |
| R476 | 1-216-065-00 | METAL CHIP | 4.7K | 5% | 1/10W | |
| R477 | 1-216-041-00 | METAL CHIP | 470 | 5% | 1/10W | |
| R478 | 1-216-063-00 | METAL CHIP | 3.9K | 5% | 1/10W | |
| R479 | 1-216-049-00 | METAL CHIP | 1K | 5% | 1/10W | |
| R480 | 1-216-085-00 | METAL CHIP | 33K | 5% | 1/10W | |
| R481 | 1-216-071-00 | METAL CHIP | 8.2K | 5% | 1/10W | |
| R482 | 1-216-073-00 | METAL CHIP | 10K | 5% | 1/10W | |
| R483 | 1-216-082-00 | METAL GLAZE | 24K | 5% | 1/10W | |
| R484 | 1-216-075-00 | METAL CHIP | 12K | 5% | 1/10W | |
| R485 | 1-216-295-00 | METAL CHIP | 0 | 5% | 1/10W | |
| R488 | 1-216-295-00 | METAL CHIP | 0 | 5% | 1/10W | |
| R501 | 1-216-643-11 | METAL CHIP | 470 | 0.5% | 1/10W | |
| R502 | 1-216-665-11 | METAL CHIP | 3.9K | 0.5% | 1/10W | |
| R503 | 1-216-643-11 | METAL CHIP | 470 | 0.5% | 1/10W | |
| R504 | 1-216-661-11 | METAL CHIP | 2.7K | 0.5% | 1/10W | |
| R505 | 1-216-653-11 | METAL CHIP | 1.2K | 0.5% | 1/10W | |
| R506 | 1-216-057-00 | METAL CHIP | 2.2K | 5% | 1/10W | |
| R507 | 1-216-065-00 | METAL CHIP | 4.7K | 5% | 1/10W | |
| R508 | 1-216-085-00 | METAL CHIP | 33K | 5% | 1/10W | |
| R509 | 1-216-077-00 | METAL CHIP | 15K | 5% | 1/10W | |
| R510 | 1-216-667-11 | METAL CHIP | 4.7K | 0.5% | 1/10W | |
| R511 | 1-216-647-11 | METAL CHIP | 680 | 0.5% | 1/10W | |
| R512 | 1-216-667-11 | METAL CHIP | 4.7K | 0.5% | 1/10W | |
| R513 | 1-216-645-11 | METAL CHIP | 560 | 0.5% | 1/10W | |
| R514 | 1-216-679-11 | METAL CHIP | 15K | 0.5% | 1/10W | |
| R515 | 1-216-699-11 | METAL CHIP | 100K | 0.5% | 1/10W | |
| R516 | 1-216-659-11 | METAL CHIP | 2.2K | 0.5% | 1/10W | |
| R517 | 1-216-641-11 | METAL CHIP | 390 | 0.5% | 1/10W | |
| R519 | 1-216-295-00 | METAL CHIP | 0 | 5% | 1/10W | |
| R520 | 1-216-035-00 | METAL CHIP | 270 | 5% | 1/10W | |
| R521 | 1-216-073-00 | METAL CHIP | 10K | 5% | 1/10W | |
| R522 | 1-216-748-11 | METAL CHIP | 39K | 5% | 1/10W | |
| R523 | 1-216-121-00 | METAL CHIP | 1M | 5% | 1/10W | |
| R524 | 1-216-113-00 | METAL CHIP | 470K | 5% | 1/10W | |
| R525 | 1-216-075-00 | METAL CHIP | 12K | 5% | 1/10W | |
| R526 | 1-216-081-00 | METAL CHIP | 22K | 5% | 1/10W | |
| R527 | 1-216-075-00 | METAL CHIP | 12K | 5% | 1/10W | |
| R528 | 1-216-083-00 | METAL CHIP | 27K | 5% | 1/10W | |
| R529 | 1-216-081-00 | METAL CHIP | 22K | 5% | 1/10W | |
| R530 | 1-216-629-11 | METAL CHIP | 120 | 0.5% | 1/10W | |
| R531 | 1-216-627-11 | METAL CHIP | 100 | 0.5% | 1/10W | |
| R532 | 1-216-611-11 | METAL CHIP | 22 | 0.5% | 1/10W | |
| R533 | 1-216-083-00 | METAL CHIP | 27K | 5% | 1/10W | |
| R534 | 1-216-049-00 | METAL CHIP | 1K | 5% | 1/10W | |
| R537 | 1-216-641-11 | METAL CHIP | 390 | 0.5% | 1/10W | |
| R538 | 1-216-083-00 | METAL CHIP | 27K | 5% | 1/10W | |
| R539 | 1-216-081-00 | METAL CHIP | 22K | 5% | 1/10W | |
| R540 | 1-216-295-00 | METAL CHIP | 0 | 5% | 1/10W | |
| R541 | 1-216-629-11 | METAL CHIP | 120 | 0.5% | 1/10W | |
| R542 | 1-216-637-11 | METAL CHIP | 270 | 0.5% | 1/10W | |
| R543 | 1-216-748-11 | METAL CHIP | 39K | 5% | 1/10W | |
| R544 | 1-216-748-11 | METAL CHIP | 39K | 5% | 1/10W | |
| R545 | 1-216-055-00 | METAL CHIP | 1.8K | 5% | 1/10W | |
| R546 | 1-216-057-00 | METAL CHIP | 2.2K | 5% | 1/10W | |
| R601 | 1-216-073-00 | METAL CHIP | 10K | 5% | 1/10W | |
| R602 | 1-216-077-00 | METAL CHIP | 15K | 5% | 1/10W | |
| R603 | 1-216-639-11 | METAL CHIP | 330 | 0.5% | 1/10W | |
| R604 | 1-216-077-00 | METAL CHIP | 15K | 5% | 1/10W | |
| R605 | 1-216-669-11 | METAL CHIP | 5.6K | 0.5% | 1/10W | |
| R606 | 1-216-683-11 | METAL CHIP | 22K | 0.5% | 1/10W | |
| R607 | 1-216-667-11 | METAL CHIP | 4.7K | 0.5% | 1/10W | |
| R609 | 1-216-103-00 | METAL CHIP | 180K | 5% | 1/10W | |
| R610 | 1-216-065-00 | METAL CHIP | 4.7K | 5% | 1/10W | |
| R612 | 1-216-073-00 | METAL CHIP | 10K | 5% | 1/10W | |
| R613 | 1-216-655-11 | METAL CHIP | 1.5K | 0.5% | 1/10W | |
| R614 | 1-216-667-11 | METAL CHIP | 4.7K | 0.5% | 1/10W | |
| R616 | 1-216-057-00 | METAL CHIP | 2.2K | 5% | 1/10W | |
| R617 | 1-216-065-00 | METAL CHIP | 4.7K | 5% | 1/10W | |
| R618 | 1-216-651-11 | METAL CHIP | 1K | 0.5% | 1/10W | |
| R619 | 1-216-089-00 | METAL CHIP | 47K | 5% | 1/10W | |
| R620 | 1-216-061-00 | METAL CHIP | 3.3K | 5% | 1/10W | |
| R621 | 1-216-081-00 | METAL CHIP | 22K | 5% | 1/10W | |
| R622 | 1-216-097-00 | METAL CHIP | 100K | 5% | 1/10W | |
| R623 | 1-216-033-00 | METAL CHIP | 220 | 5% | 1/10W | |
| R624 | 1-216-057-00 | METAL CHIP | 2.2K | 5% | 1/10W | |
| R625 | 1-216-069-00 | METAL CHIP | 6.8K | 5% | 1/10W | |
| R626 | 1-216-295-00 | METAL CHIP | 0 | 5% | 1/10W | |
| R627 | 1-216-081-00 | METAL CHIP | 22K | 5% | 1/10W | |
| R628 | 1-216-081-00 | METAL CHIP | 22K | 5% | 1/10W | |
| R629 | 1-216-667-11 | METAL CHIP | 4.7K | 0.5% | 1/10W | |
| R632 | 1-216-645-11 | METAL CHIP | 560 | 0.5% | 1/10W | |
| R633 | 1-216-659-11 | METAL CHIP | 2.2K | 0.5% | 1/10W | |
| R634 | 1-216-085-00 | METAL CHIP | 33K | 5% | 1/10W | |
| R635 | 1-216-085-00 | METAL CHIP | 33K | 5% | 1/10W | |
| R636 | 1-216-049-00 | METAL CHIP | 1K | 5% | 1/10W | |
| R637 | 1-216-081-00 | METAL CHIP | 22K | 5% | 1/10W | |
| R638 | 1-216-085-00 | METAL CHIP | 33K | 5% | 1/10W | |
| R639 | 1-216-057-00 | METAL CHIP | 2.2K | 5% | 1/10W | |
| R640 | 1-216-651-11 | METAL CHIP | 1K | 0.5% | 1/10W | |
| R641 | 1-216-651-11 | METAL CHIP | 1K | 0.5% | 1/10W | |
| R642 | 1-216-055-00 | METAL CHIP | 1.8K | 5% | 1/10W | |
| R643 | 1-216-295-00 | METAL CHIP | 0 | 5% | 1/10W | |
| R644 | 1-216-073-00 | METAL CHIP | 10K | 5% | 1/10W | |

## HK-5

| Ref. No. | Part No. | Description | Remark |
|---|---|---|---|
| R645 | 1-216-073-00 | METAL CHIP 10K 5% 1/10W | |
| R646 | 1-216-097-00 | METAL CHIP 100K 5% 1/10W | |
| R647 | 1-216-085-00 | METAL CHIP 33K 5% 1/10W | |
| R648 | 1-216-065-00 | METAL CHIP 4.7K 5% 1/10W | |
| R649 | 1-216-079-00 | METAL CHIP 18K 5% 1/10W | |
| R650 | 1-216-061-00 | METAL CHIP 3.3K 5% 1/10W | |
| R651 | 1-216-061-00 | METAL CHIP 3.3K 5% 1/10W | |
| R652 | 1-216-065-00 | METAL CHIP 4.7K 5% 1/10W | |
| R653 | 1-216-061-00 | METAL CHIP 3.3K 5% 1/10W | |
| R654 | 1-216-061-00 | METAL CHIP 3.3K 5% 1/10W | |
| R655 | 1-216-049-00 | METAL CHIP 1K 5% 1/10W | |
| R656 | 1-216-049-00 | METAL CHIP 1K 5% 1/10W | |
| R657 | 1-216-121-00 | METAL CHIP 1M 5% 1/10W | |
| R658 | 1-216-039-00 | METAL CHIP 390 5% 1/10W | |
| R659 | 1-216-121-00 | METAL CHIP 1M 5% 1/10W | |
| R660 | 1-216-115-00 | METAL CHIP 560K 5% 1/10W | |
| R661 | 1-216-059-00 | METAL CHIP 2.7K 5% 1/10W | |
| R662 | 1-216-069-00 | METAL CHIP 6.8K 5% 1/10W | |
| R663 | 1-216-667-11 | METAL CHIP 4.7K 0.5% 1/10W | |
| R664 | 1-216-655-11 | METAL CHIP 1.5K 0.5% 1/10W | |
| R665 | 1-216-089-00 | METAL CHIP 47K 5% 1/10W | |
| R666 | 1-216-091-00 | METAL CHIP 56K 5% 1/10W | |
| R667 | 1-216-033-00 | METAL CHIP 220 5% 1/10W | |
| R668 | 1-216-057-00 | METAL CHIP 2.2K 5% 1/10W | |
| R669 | 1-216-093-00 | METAL CHIP 68K 5% 1/10W | |
| R670 | 1-216-063-00 | METAL CHIP 3.9K 5% 1/10W | |
| R671 | 1-216-039-00 | METAL CHIP 390 5% 1/10W | |
| R672 | 1-216-057-00 | METAL CHIP 2.2K 5% 1/10W | |
| R673 | 1-216-073-00 | METAL CHIP 10K 5% 1/10W | |
| R674 | 1-216-073-00 | METAL CHIP 10K 5% 1/10W | |
| R675 | 1-216-106-00 | METAL CHIP 240K 5% 1/10W | |
| R676 | 1-216-106-00 | METAL CHIP 240K 5% 1/10W | |
| R677 | 1-216-105-00 | METAL CHIP 220K 5% 1/10W | |
| R678 | 1-216-073-00 | METAL CHIP 10K 5% 1/10W | |
| R699 | 1-216-069-00 | METAL CHIP 6.8K 5% 1/10W | |
| R701 | 1-216-049-00 | METAL CHIP 1K 5% 1/10W | |
| R702 | 1-216-089-00 | METAL CHIP 47K 5% 1/10W | |
| R703 | 1-216-089-00 | METAL CHIP 47K 5% 1/10W | |
| R704 | 1-216-645-11 | METAL CHIP 560 0.5% 1/10W | |
| R705 | 1-216-635-11 | METAL CHIP 220 0.5% 1/10W | |
| R706 | 1-216-073-00 | METAL CHIP 10K 5% 1/10W | |
| R707 | 1-216-651-11 | METAL CHIP 1K 0.5% 1/10W | |
| R708 | 1-216-053-00 | METAL CHIP 1.5K 5% 1/10W | |
| R709 | 1-216-673-11 | METAL CHIP 8.2K 0.5% 1/10W | |
| R710 | 1-216-643-11 | METAL CHIP 470 0.5% 1/10W | |
| R711 | 1-216-645-11 | METAL CHIP 560 0.5% 1/10W | |
| R728 | 1-216-073-00 | METAL CHIP 10K 5% 1/10W | |
| R729 | 1-216-049-00 | METAL CHIP 1K 5% 1/10W | |

| Ref. No. | Part No. | Description | Remark |
|---|---|---|---|
| R745 | 1-216-049-00 | METAL CHIP 1K 5% 1/10W | |
| R746 | 1-216-061-00 | METAL CHIP 3.3K 5% 1/10W | |
| R748 | 1-216-025-00 | METAL CHIP 100 5% 1/10W | |
| R750 | 1-216-043-00 | METAL CHIP 560 5% 1/10W | |
| R751 | 1-216-037-00 | METAL CHIP 330 5% 1/10W | |
| R752 | 1-216-085-00 | METAL CHIP 33K 5% 1/10W | |
| R753 | 1-216-049-00 | METAL CHIP 1K 5% 1/10W | |
| R754 | 1-216-049-00 | METAL CHIP 1K 5% 1/10W | |
| R755 | 1-216-049-00 | METAL CHIP 1K 5% 1/10W | |
| R756 | 1-216-049-00 | METAL CHIP 1K 5% 1/10W | |
| R757 | 1-216-049-00 | METAL CHIP 1K 5% 1/10W | |
| R758 | 1-216-041-00 | METAL CHIP 470 5% 1/10W | |
| R759 | 1-216-295-00 | METAL CHIP 0 5% 1/10W | |
| R760 | 1-216-041-00 | METAL CHIP 470 5% 1/10W | |
| R761 | 1-216-034-00 | METAL CHIP 240 5% 1/10W | |
| R762 | 1-216-049-00 | METAL CHIP 1K 5% 1/10W | |
| R763 | 1-216-037-00 | METAL CHIP 330 5% 1/10W | |
| R764 | 1-216-037-00 | METAL CHIP 330 5% 1/10W | |
| R765 | 1-216-041-00 | METAL CHIP 470 5% 1/10W | |
| R766 | 1-216-089-00 | METAL CHIP 47K 5% 1/10W | |
| R767 | 1-216-041-00 | METAL CHIP 470 5% 1/10W | |
| R768 | 1-216-041-00 | METAL CHIP 470 5% 1/10W | |
| R770 | 1-216-081-00 | METAL CHIP 22K 5% 1/10W | |
| R771 | 1-216-081-00 | METAL CHIP 22K 5% 1/10W | |
| R772 | 1-216-041-00 | METAL CHIP 470 5% 1/10W | |
| R773 | 1-216-041-00 | METAL CHIP 470 5% 1/10W | |
| R774 | 1-216-660-11 | METAL CHIP 2.4K 0.5% 1/10W | |
| R776 | 1-216-049-00 | METAL CHIP 1K 5% 1/10W | |
| R801 | 1-216-049-00 | METAL CHIP 1K 5% 1/10W | |
| R802 | 1-216-041-00 | METAL CHIP 470 5% 1/10W | |
| R803 | 1-216-065-00 | METAL CHIP 4.7K 5% 1/10W | |
| R804 | 1-216-089-00 | METAL CHIP 47K 5% 1/10W | |
| R805 | 1-216-081-00 | METAL CHIP 22K 5% 1/10W | |
| R806 | 1-216-043-00 | METAL CHIP 560 5% 1/10W | |
| R807 | 1-216-093-00 | METAL CHIP 68K 5% 1/10W | |
| R808 | 1-216-089-00 | METAL CHIP 47K 5% 1/10W | |
| R809 | 1-216-075-00 | METAL CHIP 12K 5% 1/10W | |
| R810 | 1-216-049-00 | METAL CHIP 1K 5% 1/10W | |
| R811 | 1-216-071-00 | METAL CHIP 8.2K 5% 1/10W | |
| R812 | 1-216-097-00 | METAL CHIP 100K 5% 1/10W | |
| R813 | 1-216-095-00 | METAL CHIP 82K 5% 1/10W | |
| R814 | 1-216-099-00 | METAL CHIP 120K 5% 1/10W | |
| R815 | 1-216-053-00 | METAL CHIP 1.5K 5% 1/10W | |
| R816 | 1-216-053-00 | METAL CHIP 1.5K 5% 1/10W | |
| R817 | 1-216-053-00 | METAL CHIP 1.5K 5% 1/10W | |
| R818 | 1-216-065-00 | METAL CHIP 4.7K 5% 1/10W | |
| R819 | 1-216-053-00 | METAL CHIP 1.5K 5% 1/10W | |
| R820 | 1-216-053-00 | METAL CHIP 1.5K 5% 1/10W | |
| R821 | 1-216-073-00 | METAL CHIP 10K 5% 1/10W | |

| Ref. No. | Part No. | Description | Remark |
|---|---|---|---|
| R822 | 1-216-045-00 | METAL CHIP 680 5% 1/10W | |
| R823 | 1-216-065-00 | METAL CHIP 4.7K 5% 1/10W | |
| R824 | 1-216-037-00 | METAL CHIP 330 5% 1/10W | |
| R825 | 1-216-049-00 | METAL CHIP 1K 5% 1/10W | |
| R826 | 1-216-081-00 | METAL CHIP 22K 5% 1/10W | |
| R827 | 1-216-079-00 | METAL CHIP 18K 5% 1/10W | |
| R828 | 1-216-045-00 | METAL CHIP 680 5% 1/10W | |
| R829 | 1-216-045-00 | METAL CHIP 680 5% 1/10W | |
| R830 | 1-216-295-00 | METAL CHIP 0 5% 1/10W | |
| R831 | 1-216-049-00 | METAL CHIP 1K 5% 1/10W | |
| R837 | 1-216-073-00 | METAL CHIP 10K 5% 1/10W | |
| R901 | 1-216-049-00 | METAL CHIP 1K 5% 1/10W | |
| R902 | 1-216-057-00 | METAL CHIP 2.2K 5% 1/10W | |
| R903 | 1-216-057-00 | METAL CHIP 2.2K 5% 1/10W | |
| R904 | 1-216-081-00 | METAL CHIP 22K 5% 1/10W | |
| R905 | 1-216-055-00 | METAL CHIP 1.8K 5% 1/10W | |
| R907 | 1-216-041-00 | METAL CHIP 470 5% 1/10W | |
| R910 | 1-216-089-00 | METAL CHIP 47K 5% 1/10W | |
| R911 | 1-216-089-00 | METAL CHIP 47K 5% 1/10W | |
| R912 | 1-216-089-00 | METAL CHIP 47K 5% 1/10W | |
| R913 | 1-216-089-00 | METAL CHIP 47K 5% 1/10W | |
| R914 | 1-216-089-00 | METAL CHIP 47K 5% 1/10W | |
| | | < VARIABLE RESISTOR > | |
| RV101 | 1-230-869-11 | RES, ADJ, METAL 4.7K | |
| RV201 | 1-230-867-11 | RES, ADJ, METAL 1K | |
| RV202 | 1-230-868-11 | RES, ADJ, METAL 2.2K | |
| RV301 | 1-230-869-11 | RES, ADJ, METAL 4.7K | |
| RV302 | 1-230-870-11 | RES, ADJ, METAL 10K | |
| RV303 | 1-230-870-11 | RES, ADJ, METAL 10K | |
| RV304 | 1-230-870-11 | RES, ADJ, METAL 10K | |
| RV305 | 1-230-875-21 | RES, ADJ, METAL 220K | |
| RV401 | 1-230-873-11 | RES, ADJ, METAL 47K | |
| RV402 | 1-230-869-11 | RES, ADJ, METAL 4.7K | |
| RV403 | 1-230-868-11 | RES, ADJ, METAL 2.2K | |
| RV404 | 1-230-868-11 | RES, ADJ, METAL 2.2K | |
| RV405 | 1-230-866-11 | RES, ADJ, METAL 470 | |
| RV501 | 1-230-870-11 | RES, ADJ, METAL 10K | |
| RV502 | 1-230-870-11 | RES, ADJ, METAL 10K | |
| RV601 | 1-230-871-11 | RES, ADJ, METAL 22K | |
| RV602 | 1-230-870-11 | RES, ADJ, METAL 10K | |
| RV700 | 1-230-868-11 | RES, ADJ, METAL 2.2K | |
| RV801 | 1-230-873-11 | RES, ADJ, METAL 47K | |
| RV802 | 1-230-875-21 | RES, ADJ, METAL 220K | |
| | | < COIL > | |
| T101 | 1-409-466-21 | TRAP (1.5/1.7MHz) | |
| T501 | 1-235-437-11 | BPF, PB C (4.43MHz) | |
| T601 | 1-409-396-11 | REC C TRAP | |

| Ref. No. | Part No. | Description | Remark |
|---|---|---|---|
| T602 | 1-409-394-11 | TRAP, CHROMA EMPHASIS (4.43MHz) | |
| | | < VIBRATOR > | |
| X501 | 1-567-347-11 | OSCILLATOR, CERAMIC (13.301MHz) | |
| X601 | 1-567-504-11 | OSCILLATOR, CRYSTAL (4.433619MHz) | |
| X602 | 1-567-827-11 | VIBRATOR, CRYSTAL (5.85938MHz) | |

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* A-7070-955-A IG-4 BOARD, COMPLETE
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(Ref.No 6,000 Series)

| Ref. No. | Part No. | Description | Remark |
|---|---|---|---|
| | | < CAPACITOR > | |
| C024 | 1-164-232-11 | CERAMIC CHIP 0.01uF 50V | |
| C025 | 1-164-232-11 | CERAMIC CHIP 0.01uF 50V | |
| C026 | 1-164-232-11 | CERAMIC CHIP 0.01uF 50V | |
| C027 | 1-164-232-11 | CERAMIC CHIP 0.01uF 50V | |
| | | < CONNECTOR > | |
| CN004 | 1-566-943-11 | CONNECTOR, BOARD TO BOARD 18P | |
| CN005 | 1-566-944-11 | CONNECTOR, BOARD TO BOARD 22P | |
| CN006 | 1-566-945-11 | CONNECTOR, BOARD TO BOARD 18P | |
| CN007 | 1-566-945-11 | CONNECTOR, BOARD TO BOARD 18P | |
| | | < RESISTOR > | |
| R044 | 1-216-049-00 | METAL CHIP 1K 5% 1/10W | |
| R099 | 1-216-049-00 | METAL CHIP 1K 5% 1/10W | |

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* A-7062-849-A IG-14 BOARD, COMPLETE
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(Ref.No 19,000 Series)

7-685-646-79 SCREW +BVTP 3X8 TYPE2 IT-3

| Ref. No. | Part No. | Description | Remark |
|---|---|---|---|
| | | < CONNECTOR > | |
| CN001 | 1-506-471-11 | CONNECTOR 6P, MALE | |
| CN002 | 1-506-470-11 | CONNECTOR 5P, MALE | |
| CN003 | 1-506-484-11 | CONNECTOR 5P, MALE | |
| CN004 | 1-506-469-11 | CONNECTOR 4P, MALE | |
| CN005 | 1-506-471-11 | CONNECTOR 6P, MALE | |
| CN006 | 1-506-471-11 | CONNECTOR 6P, MALE | |
| CN007 | 1-506-477-11 | CONNECTOR 12P, MALE | |
| CN008 | 1-506-469-11 | CONNECTOR 4P, MALE | |
| CN009 | 1-506-469-11 | CONNECTOR 4P, MALE | |
| CN010 | 1-506-477-11 | CONNECTOR 12P, MALE | |
| CN011 | 1-506-469-11 | CONNECTOR 4P, MALE | |
| CN012 | * 1-560-900-00 | PIN, CONNECTOR 12P | |
| CN013 | 1-506-482-11 | CONNECTOR 3P, MALE | |

| Ref. No. | Part No. | Description | Remark |
|---|---|---|---|
| | | < IC LINK > | |
| PS001 | ⚠1-532-637-00 | LINK, IC 1.0A | |
| PS002 | ⚠1-532-675-00 | LINK, IC 1.5A | |
| PS003 | ⚠1-532-637-00 | LINK, IC 1.0A | |
| PS004 | ⚠1-532-675-00 | LINK, IC 1.5A | |
| PS005 | ⚠1-532-637-00 | LINK, IC 1.0A | |
| PS006 | ⚠1-532-637-00 | LINK, IC 1.0A | |
| PS007 | ⚠1-532-679-00 | LINK, IC (ICP-N15) | |
| PS008 | ⚠1-532-685-00 | LINK, IC | |
| PS009 | ⚠1-532-685-00 | LINK, IC | |
| PS010 | ⚠1-532-685-00 | LINK, IC | |
| PS011 | ⚠1-532-637-00 | LINK, IC 1.0A | |
| PS012 | ⚠1-532-679-00 | LINK, IC (ICP-N15) | |
| PS013 | ⚠1-532-679-00 | LINK, IC (ICP-N15) | |
| PS014 | ⚠1-532-679-00 | LINK, IC (ICP-N15) | |
| PS015 | ⚠1-532-679-00 | LINK, IC (ICP-N15) | |
| PS016 | ⚠1-532-679-00 | LINK, IC (ICP-N15) | |
| PS017 | ⚠1-532-679-00 | LINK, IC (ICP-N15) | |
| | | < TRANSISTOR > | |
| Q001 | 8-729-119-76 | TRANSISTOR 2SA1175 | |
| | | < RESISTOR > | |
| R001 | 1-249-441-11 | CARBON 100K 5% 1/4W | |
| R002 | 1-249-437-11 | CARBON 47K 5% 1/4W | |

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* A-7071-452-A JB-27 BOARD, COMPLETE

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(Ref. No 14, 000 Series)

| Ref. No. | Part No. | Description | Remark |
|---|---|---|---|
| | | < CAPACITOR > | |
| C101 | 1-102-074-00 | CERAMIC 0.001uF 10% | 50V |
| C102 | 1-102-074-00 | CERAMIC 0.001uF 10% | 50V |
| C103 | 1-102-074-00 | CERAMIC 0.001uF 10% | 50V |
| C104 | 1-102-074-00 | CERAMIC 0.001uF 10% | 50V |
| C105 | 1-102-074-00 | CERAMIC 0.001uF 10% | 50V |
| C106 | 1-102-074-00 | CERAMIC 0.001uF 10% | 50V |
| C107 | 1-102-074-00 | CERAMIC 0.001uF 10% | 50V |

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* A-7071-453-A JB-28 BOARD, COMPLETE

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(Ref. No 1, 000 Series)

| Ref. No. | Part No. | Description | Remark |
|---|---|---|---|
| | | < CAPACITOR > | |
| C401 | 1-101-004-00 | CERAMIC 0.01uF | 50V |
| C402 | 1-124-584-00 | ELECT 100uF 20% | 10V |
| C403 | 1-102-074-00 | CERAMIC 0.001uF 10% | 50V |
| | | < CONNECTOR > | |
| CN401 | 1-506-470-11 | CONNECTOR 5P, MALE | |
| | | < DIODE > | |
| D401 | 8-719-016-42 | DIODE MC932TP | |
| | | < JACK > | |
| J401 | 1-537-005-21 | JACK BOARD (VIDEO/AUDIO/RFU DC OUT) | |
| | | < TRANSISTOR > | |
| Q401 | 8-729-119-76 | TRANSISTOR 2SA1175 | |
| | | < RESISTOR > | |
| R401 | 1-249-393-11 | CARBON 10 5% 1/4W | |
| R402 | 1-249-425-11 | CARBON 4.7K 5% 1/4W | |

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* A-7070-024-A LD-1 BOARD, COMPLETE

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(Ref. No 6, 000 Series)

* 1-613-367-11 LD-1 BOARD

| Ref. No. | Part No. | Description | Remark |
|---|---|---|---|
| | | < DIODE > | |
| D901 | 8-719-928-54 | DIODE GL-450S | |

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LS-9 BOARD, COMPLETE

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(Ref. No 8, 000 Series)

| Ref. No. | Part No. | Description | Remark |
|---|---|---|---|
| | 1-506-485-11 | CONNECTOR 6P, MALE | |

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* A-7062-215-B MA-41 BOARD, COMPLETE

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(Ref. No 17, 000 Series)

| Ref. No. | Part No. | Description | Remark |
|---|---|---|---|
| | | < CAPACITOR > | |
| C001 | 1-124-234-00 | ELECT 22uF 20% | 16V |
| C002 | 1-124-234-00 | ELECT 22uF 20% | 16V |
| C003 | 1-124-234-00 | ELECT 22uF 20% | 16V |
| C005 | 1-124-234-00 | ELECT 22uF 20% | 16V |
| C006 | 1-124-234-00 | ELECT 22uF 20% | 16V |

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

# MA-41

| Ref. No. | Part No. | Description | | | Remark |
|---|---|---|---|---|---|
| C011 | 1-124-234-00 | ELECT | 22uF | 20% | 16V |
| C012 | 1-124-234-00 | ELECT | 22uF | 20% | 16V |
| C013 | 1-124-234-00 | ELECT | 22uF | 20% | 16V |
| C014 | 1-124-234-00 | ELECT | 22uF | 20% | 16V |
| C015 | 1-124-234-00 | ELECT | 22uF | 20% | 16V |
| C016 | 1-124-234-00 | ELECT | 22uF | 20% | 16V |
| C017 | 1-124-234-00 | ELECT | 22uF | 20% | 16V |
| C022 | 1-124-234-00 | ELECT | 22uF | 20% | 16V |
| C026 | 1-124-234-00 | ELECT | 22uF | 20% | 16V |
| C028 | 1-124-234-00 | ELECT | 22uF | 20% | 16V |
| C029 | 1-124-234-00 | ELECT | 22uF | 20% | 16V |
| C030 | 1-130-473-00 | MYLAR | 0.0015uF | 5% | 50V |
| C031 | 1-124-234-00 | ELECT | 22uF | 20% | 16V |
| C032 | 1-124-234-00 | ELECT | 22uF | 20% | 16V |
| C037 | 1-124-234-00 | ELECT | 22uF | 20% | 16V |
| C039 | 1-124-234-00 | ELECT | 22uF | 20% | 16V |
| C040 | 1-124-234-00 | ELECT | 22uF | 20% | 16V |
| C043 | 1-124-234-00 | ELECT | 22uF | 20% | 16V |
| C045 | 1-124-234-00 | ELECT | 22uF | 20% | 16V |
| C046 | 1-124-234-00 | ELECT | 22uF | 20% | 16V |
| C047 | 1-124-234-00 | ELECT | 22uF | 20% | 16V |
| C052 | 1-124-234-00 | ELECT | 22uF | 20% | 16V |
| C055 | 1-124-234-00 | ELECT | 22uF | 20% | 16V |
| C061 | 1-124-234-00 | ELECT | 22uF | 20% | 16V |
| C062 | 1-124-234-00 | ELECT | 22uF | 20% | 16V |
| C063 | 1-124-234-00 | ELECT | 22uF | 20% | 16V |
| C064 | 1-124-234-00 | ELECT | 22uF | 20% | 16V |
| C066 | 1-124-234-00 | ELECT | 22uF | 20% | 16V |
| C067 | 1-124-234-00 | ELECT | 22uF | 20% | 16V |
| C068 | 1-124-234-00 | ELECT | 22uF | 20% | 16V |
| C071 | 1-124-234-00 | ELECT | 22uF | 20% | 16V |
| C072 | 1-124-234-00 | ELECT | 22uF | 20% | 16V |
| C073 | 1-124-234-00 | ELECT | 22uF | 20% | 16V |
| C075 | 1-124-234-00 | ELECT | 22uF | 20% | 16V |
| C076 | 1-124-234-00 | ELECT | 22uF | 20% | 16V |
| C201 | 1-124-234-00 | ELECT | 22uF | 20% | 16V |
| C202 | 1-124-234-00 | ELECT | 22uF | 20% | 16V |
| C203 | 1-124-234-00 | ELECT | 22uF | 20% | 16V |
| C205 | 1-124-234-00 | ELECT | 22uF | 20% | 16V |
| C206 | 1-124-234-00 | ELECT | 22uF | 20% | 16V |
| C211 | 1-124-234-00 | ELECT | 22uF | 20% | 16V |
| C212 | 1-124-234-00 | ELECT | 22uF | 20% | 16V |
| C213 | 1-124-234-00 | ELECT | 22uF | 20% | 16V |
| C214 | 1-124-234-00 | ELECT | 22uF | 20% | 16V |
| C215 | 1-124-234-00 | ELECT | 22uF | 20% | 16V |
| C216 | 1-124-234-00 | ELECT | 22uF | 20% | 16V |
| C217 | 1-124-234-00 | ELECT | 22uF | 20% | 16V |
| C222 | 1-124-234-00 | ELECT | 22uF | 20% | 16V |
| C226 | 1-124-234-00 | ELECT | 22uF | 20% | 16V |
| C228 | 1-124-234-00 | ELECT | 22uF | 20% | 16V |
| C229 | 1-124-234-00 | ELECT | 22uF | 20% | 16V |
| C230 | 1-130-473-00 | MYLAR | 0.0015uF | 5% | 50V |
| C231 | 1-124-234-00 | ELECT | 22uF | 20% | 16V |
| C232 | 1-124-234-00 | ELECT | 22uF | 20% | 16V |
| C237 | 1-124-234-00 | ELECT | 22uF | 20% | 16V |
| C239 | 1-124-234-00 | ELECT | 22uF | 20% | 16V |
| C240 | 1-124-234-00 | ELECT | 22uF | 20% | 16V |
| C243 | 1-124-234-00 | ELECT | 22uF | 20% | 16V |
| C245 | 1-124-234-00 | ELECT | 22uF | 20% | 16V |
| C246 | 1-124-234-00 | ELECT | 22uF | 20% | 16V |
| C247 | 1-124-234-00 | ELECT | 22uF | 20% | 16V |
| C252 | 1-124-234-00 | ELECT | 22uF | 20% | 16V |
| C255 | 1-124-234-00 | ELECT | 22uF | 20% | 16V |
| C261 | 1-124-234-00 | ELECT | 22uF | 20% | 16V |
| C262 | 1-124-234-00 | ELECT | 22uF | 20% | 16V |
| C263 | 1-124-234-00 | ELECT | 22uF | 20% | 16V |
| C264 | 1-124-234-00 | ELECT | 22uF | 20% | 16V |
| C266 | 1-124-234-00 | ELECT | 22uF | 20% | 16V |
| C267 | 1-124-234-00 | ELECT | 22uF | 20% | 16V |
| C268 | 1-124-234-00 | ELECT | 22uF | 20% | 16V |
| C270 | 1-124-234-00 | ELECT | 22uF | 20% | 16V |
| C271 | 1-124-234-00 | ELECT | 22uF | 20% | 16V |
| C272 | 1-124-234-00 | ELECT | 22uF | 20% | 16V |
| C273 | 1-124-234-00 | ELECT | 22uF | 20% | 16V |
| C275 | 1-124-234-00 | ELECT | 22uF | 20% | 16V |
| C401 | 1-124-234-00 | ELECT | 22uF | 20% | 16V |
| C403 | 1-124-234-00 | ELECT | 22uF | 20% | 16V |
| C404 | 1-124-234-00 | ELECT | 22uF | 20% | 16V |
| C405 | 1-124-234-00 | ELECT | 22uF | 20% | 16V |
| C413 | 1-124-234-00 | ELECT | 22uF | 20% | 16V |
| C414 | 1-124-234-00 | ELECT | 22uF | 20% | 16V |
| C415 | 1-124-234-00 | ELECT | 22uF | 20% | 16V |
| C416 | 1-124-234-00 | ELECT | 22uF | 20% | 16V |
| C417 | 1-124-234-00 | ELECT | 22uF | 20% | 16V |
| C422 | 1-124-234-00 | ELECT | 22uF | 20% | 16V |
| C426 | 1-124-234-00 | ELECT | 22uF | 20% | 16V |
| C428 | 1-124-234-00 | ELECT | 22uF | 20% | 16V |
| C429 | 1-124-234-00 | ELECT | 22uF | 20% | 16V |
| C430 | 1-130-473-00 | MYLAR | 0.0015uF | 5% | 50V |
| C431 | 1-124-234-00 | ELECT | 22uF | 20% | 16V |
| C432 | 1-124-234-00 | ELECT | 22uF | 20% | 16V |
| C437 | 1-124-234-00 | ELECT | 22uF | 20% | 16V |
| C439 | 1-124-234-00 | ELECT | 22uF | 20% | 16V |
| C440 | 1-124-234-00 | ELECT | 22uF | 20% | 16V |
| C443 | 1-124-234-00 | ELECT | 22uF | 20% | 16V |
| C445 | 1-124-234-00 | ELECT | 22uF | 20% | 16V |
| C446 | 1-124-234-00 | ELECT | 22uF | 20% | 16V |
| C447 | 1-124-234-00 | ELECT | 22uF | 20% | 16V |

# MA-41

| Ref. No. | Part No. | Description | | | Remark |
|---|---|---|---|---|---|
| C457 | 1-124-234-00 | ELECT | 22uF | 20% | 16V |
| C460 | 1-124-234-00 | ELECT | 22uF | 20% | 16V |
| C461 | 1-124-234-00 | ELECT | 22uF | 20% | 16V |
| C462 | 1-124-234-00 | ELECT | 22uF | 20% | 16V |
| C463 | 1-124-234-00 | ELECT | 22uF | 20% | 16V |
| C464 | 1-124-234-00 | ELECT | 22uF | 20% | 16V |
| C466 | 1-124-234-00 | ELECT | 22uF | 20% | 16V |
| C467 | 1-124-234-00 | ELECT | 22uF | 20% | 16V |
| C468 | 1-124-234-00 | ELECT | 22uF | 20% | 16V |
| C601 | 1-126-162-11 | ELECT | 3.3uF | 20% | 50V |
| C602 | 1-126-162-11 | ELECT | 3.3uF | 20% | 50V |
| C603 | 1-126-162-11 | ELECT | 3.3uF | 20% | 50V |
| C604 | 1-126-162-11 | ELECT | 3.3uF | 20% | 50V |
| C611 | 1-124-584-00 | ELECT | 100uF | 20% | 10V |
| C612 | 1-124-584-00 | ELECT | 100uF | 20% | 10V |
| C613 | 1-164-161-11 | CERAMIC CHIP | 0.0022uF | 10% | 100V |
| C614 | 1-164-161-11 | CERAMIC CHIP | 0.0022uF | 10% | 100V |
| C615 | 1-163-141-00 | CERAMIC CHIP | 0.001uF | 5% | 50V |
| C616 | 1-163-141-00 | CERAMIC CHIP | 0.001uF | 5% | 50V |
| C617 | 1-163-037-11 | CERAMIC CHIP | 0.022uF | 10% | 25V |
| C618 | 1-163-037-11 | CERAMIC CHIP | 0.022uF | 10% | 25V |
| C619 | 1-163-141-00 | CERAMIC CHIP | 0.001uF | 5% | 50V |
| C620 | 1-163-141-00 | CERAMIC CHIP | 0.001uF | 5% | 50V |
| C621 | 1-124-584-00 | ELECT | 100uF | 20% | 10V |
| C622 | 1-124-584-00 | ELECT | 100uF | 20% | 10V |
| C623 | 1-163-141-00 | CERAMIC CHIP | 0.001uF | 5% | 50V |
| C624 | 1-163-141-00 | CERAMIC CHIP | 0.001uF | 5% | 50V |
| C625 | 1-164-161-11 | CERAMIC CHIP | 0.0022uF | 10% | 100V |
| C626 | 1-164-161-11 | CERAMIC CHIP | 0.0022uF | 10% | 100V |
| C627 | 1-124-584-00 | ELECT | 100uF | 20% | 10V |
| C628 | 1-124-584-00 | ELECT | 100uF | 20% | 10V |
| C629 | 1-126-163-11 | ELECT | 4.7uF | 20% | 50V |
| C630 | 1-124-589-11 | ELECT | 47uF | 20% | 16V |
| C631 | 1-124-584-00 | ELECT | 100uF | 20% | 10V |
| C632 | 1-163-141-00 | CERAMIC CHIP | 0.001uF | 5% | 50V |
| C633 | 1-163-141-00 | CERAMIC CHIP | 0.001uF | 5% | 50V |
| C634 | 1-124-234-00 | ELECT | 22uF | 20% | 16V |
| C635 | 1-126-162-11 | ELECT | 3.3uF | 20% | 50V |
| C636 | 1-124-257-00 | ELECT | 2.2uF | 20% | 50V |

< CONNECTOR >

| Ref. No. | Part No. | Description | Remark |
|---|---|---|---|
| CN001 | 1-506-474-11 | CONNECTOR 9P, MALE | |
| CN002 | 1-506-473-11 | CONNECTOR 8P, MALE | |
| CN003 | 1-564-006-81 | PIN, CONNECTOR 7P | |
| CN004 | 1-506-470-11 | CONNECTOR 5P, MALE | |
| CN005 | 1-506-471-11 | CONNECTOR 6P, MALE | |
| CN006 | 1-506-473-11 | CONNECTOR 8P, MALE | |
| CN008 | 1-506-471-11 | CONNECTOR 6P, MALE | |
| CN009 | 1-506-472-11 | CONNECTOR 7P, MALE | |
| CN010 | 1-506-473-11 | CONNECTOR 8P, MALE | |
| CN011 | 1-506-474-11 | CONNECTOR 9P, MALE | |
| CN012 | 1-506-474-11 | CONNECTOR 9P, MALE | |
| CN012 | 1-506-476-11 | CONNECTOR 11P, MALE | |
| CN013 | 1-506-471-11 | CONNECTOR 6P, MALE | |

< DIODE >

| Ref. No. | Part No. | Description | Remark |
|---|---|---|---|
| D001 | 8-719-104-34 | DIODE 1S2836 | |
| D002 | 8-719-104-34 | DIODE 1S2836 | |
| D003 | 8-719-104-34 | DIODE 1S2836 | |
| D006 | 8-719-104-34 | DIODE 1S2836 | |
| D008 | 8-719-104-34 | DIODE 1S2836 | |
| D009 | 8-719-104-34 | DIODE 1S2836 | |
| D010 | 8-719-104-34 | DIODE 1S2836 | |
| D201 | 8-719-104-34 | DIODE 1S2836 | |
| D202 | 8-719-104-34 | DIODE 1S2836 | |
| D203 | 8-719-104-34 | DIODE 1S2836 | |
| D205 | 8-719-104-34 | DIODE 1S2836 | |
| D208 | 8-719-104-34 | DIODE 1S2836 | |
| D209 | 8-719-104-34 | DIODE 1S2836 | |
| D210 | 8-719-104-34 | DIODE 1S2836 | |
| D401 | 8-719-104-34 | DIODE 1S2836 | |
| D405 | 8-719-400-18 | DIODE MA152WK | |
| D406 | 8-719-104-34 | DIODE 1S2836 | |
| D409 | 8-719-104-34 | DIODE 1S2836 | |
| D421 | 8-719-104-34 | DIODE 1S2836 | |
| D601 | 8-719-104-34 | DIODE 1S2836 | |
| D602 | 8-719-800-76 | DIODE 1SS226 | |
| D604 | 8-719-800-76 | DIODE 1SS226 | |
| D605 | 8-719-800-76 | DIODE 1SS226 | |
| D606 | 8-719-800-76 | DIODE 1SS226 | |
| D611 | 8-719-400-18 | DIODE MA152WK | |
| D612 | 8-719-400-18 | DIODE MA152WK | |
| D615 | 8-719-400-18 | DIODE MA152WK | |
| D616 | 8-719-104-34 | DIODE 1S2836 | |
| D621 | 8-719-400-18 | DIODE MA152WK | |
| D631 | 8-719-400-18 | DIODE MA152WK | |
| D632 | 8-719-400-18 | DIODE MA152WK | |
| D633 | 8-719-400-18 | DIODE MA152WK | |
| D634 | 8-719-104-34 | DIODE 1S2836 | |
| D635 | 8-719-104-34 | DIODE 1S2836 | |
| D636 | 8-719-800-76 | DIODE 1SS226 | |
| D637 | 8-719-400-18 | DIODE MA152WK | |
| D638 | 8-719-104-34 | DIODE 1S2836 | |

< IC >

| Ref. No. | Part No. | Description | Remark |
|---|---|---|---|
| IC001 | 8-759-981-92 | IC NJM4558M | |

| Ref. No. | Part No. | Description | Remark |
|---|---|---|---|
| IC002 | 8-759-932-64 | IC BU4052BF | |
| IC003 | 8-759-603-27 | IC M5201FP | |
| IC004 | 8-759-603-27 | IC M5201FP | |
| IC005 | 8-759-981-92 | IC NJM4558M | |
| IC006 | 8-759-981-92 | IC NJM4558M | |
| IC007 | 8-759-603-27 | IC M5201FP | |
| IC008 | 8-759-932-64 | IC BU4052BF | |
| IC009 | 8-759-981-92 | IC NJM4558M | |
| IC010 | 8-759-932-64 | IC BU4052BF | |
| IC201 | 8-759-981-92 | IC NJM4558M | |
| IC202 | 8-759-932-64 | IC BU4052BF | |
| IC203 | 8-759-603-27 | IC M5201FP | |
| IC204 | 8-759-603-27 | IC M5201FP | |
| IC205 | 8-759-981-92 | IC NJM4558M | |
| IC206 | 8-759-981-92 | IC NJM4558M | |
| IC207 | 8-759-603-27 | IC M5201FP | |
| IC208 | 8-759-932-64 | IC BU4052BF | |
| IC209 | 8-759-981-92 | IC NJM4558M | |
| IC210 | 8-759-981-92 | IC NJM4558M | |
| IC401 | 8-759-981-92 | IC NJM4558M | |
| IC402 | 8-759-932-64 | IC BU4052BF | |
| IC403 | 8-759-603-27 | IC M5201FP | |
| IC404 | 8-759-603-27 | IC M5201FP | |
| IC405 | 8-759-981-92 | IC NJM4558M | |
| IC406 | 8-759-981-92 | IC NJM4558M | |
| IC407 | 8-759-603-27 | IC M5201FP | |
| IC408 | 8-759-300-71 | IC TC4053BFHB | |
| IC409 | 8-759-932-64 | IC BU4052BF | |
| IC410 | 8-759-981-92 | IC NJM4558M | |
| IC411 | 8-759-603-27 | IC M5201FP | |
| IC601 | 8-759-981-92 | IC NJM4558M | |
| IC602 | 8-759-200-67 | IC TC4001BF | |
| IC603 | 8-759-200-83 | IC TC4071BF | |
| IC604 | 8-759-200-67 | IC TC4001BF | |
| IC605 | 8-759-200-67 | IC TC4001BF | |
| IC606 | 8-759-200-67 | IC TC4001BF | |

< TRANSISTOR >

| Ref. No. | Part No. | Description | Remark |
|---|---|---|---|
| Q001 | 8-729-202-38 | TRANSISTOR 2SC3326N | |
| Q002 | 8-729-202-38 | TRANSISTOR 2SC3326N | |
| Q003 | 8-729-202-38 | TRANSISTOR 2SC3326N | |
| Q004 | 8-729-202-38 | TRANSISTOR 2SC3326N | |
| Q005 | 8-729-202-38 | TRANSISTOR 2SC3326N | |
| Q008 | 8-729-202-38 | TRANSISTOR 2SC3326N | |
| Q009 | 8-729-202-38 | TRANSISTOR 2SC3326N | |
| Q011 | 8-729-202-38 | TRANSISTOR 2SC3326N | |
| Q012 | 8-729-901-06 | TRANSISTOR DTA144EK | |
| Q015 | 8-729-202-38 | TRANSISTOR 2SC3326N | |
| Q016 | 8-729-202-38 | TRANSISTOR 2SC3326N | |
| Q017 | 8-729-202-38 | TRANSISTOR 2SC3326N | |
| Q018 | 8-729-202-38 | TRANSISTOR 2SC3326N | |
| Q021 | 8-729-202-38 | TRANSISTOR 2SC3326N | |
| Q022 | 8-729-202-38 | TRANSISTOR 2SC3326N | |
| Q023 | 8-729-202-38 | TRANSISTOR 2SC3326N | |
| Q024 | 8-729-901-06 | TRANSISTOR DTA144EK | |
| Q025 | 8-729-202-38 | TRANSISTOR 2SC3326N | |
| Q201 | 8-729-202-38 | TRANSISTOR 2SC3326N | |
| Q202 | 8-729-202-38 | TRANSISTOR 2SC3326N | |
| Q203 | 8-729-202-38 | TRANSISTOR 2SC3326N | |
| Q204 | 8-729-202-38 | TRANSISTOR 2SC3326N | |
| Q205 | 8-729-202-38 | TRANSISTOR 2SC3326N | |
| Q208 | 8-729-202-38 | TRANSISTOR 2SC3326N | |
| Q209 | 8-729-202-38 | TRANSISTOR 2SC3326N | |
| Q211 | 8-729-202-38 | TRANSISTOR 2SC3326N | |
| Q212 | 8-729-901-06 | TRANSISTOR DTA144EK | |
| Q215 | 8-729-202-38 | TRANSISTOR 2SC3326N | |
| Q216 | 8-729-202-38 | TRANSISTOR 2SC3326N | |
| Q217 | 8-729-202-38 | TRANSISTOR 2SC3326N | |
| Q218 | 8-729-202-38 | TRANSISTOR 2SC3326N | |
| Q221 | 8-729-202-38 | TRANSISTOR 2SC3326N | |
| Q222 | 8-729-202-38 | TRANSISTOR 2SC3326N | |
| Q223 | 8-729-202-38 | TRANSISTOR 2SC3326N | |
| Q224 | 8-729-901-06 | TRANSISTOR DTA144EK | |
| Q225 | 8-729-202-38 | TRANSISTOR 2SC3326N | |
| Q401 | 8-729-202-38 | TRANSISTOR 2SC3326N | |
| Q402 | 8-729-202-38 | TRANSISTOR 2SC3326N | |
| Q403 | 8-729-202-38 | TRANSISTOR 2SC3326N | |
| Q408 | 8-729-202-38 | TRANSISTOR 2SC3326N | |
| Q409 | 8-729-202-38 | TRANSISTOR 2SC3326N | |
| Q411 | 8-729-202-38 | TRANSISTOR 2SC3326N | |
| Q412 | 8-729-901-06 | TRANSISTOR DTA144EK | |
| Q415 | 8-729-202-38 | TRANSISTOR 2SC3326N | |
| Q416 | 8-729-202-38 | TRANSISTOR 2SC3326N | |
| Q417 | 8-729-202-38 | TRANSISTOR 2SC3326N | |
| Q421 | 8-729-901-06 | TRANSISTOR DTA144EK | |
| Q422 | 8-729-202-38 | TRANSISTOR 2SC3326N | |
| Q423 | 8-729-202-38 | TRANSISTOR 2SC3326N | |
| Q424 | 8-729-901-01 | TRANSISTOR DTC144EK | |
| Q425 | 8-729-901-06 | TRANSISTOR DTA144EK | |
| Q426 | 8-729-202-38 | TRANSISTOR 2SC3326N | |
| Q601 | 8-729-901-06 | TRANSISTOR DTA144EK | |
| Q602 | 8-729-901-01 | TRANSISTOR DTC144EK | |
| Q603 | 8-729-140-75 | TRANSISTOR 2SD999-CL | |
| Q604 | 8-729-101-07 | TRANSISTOR 2SB798-DLDK | |
| Q606 | 8-729-901-06 | TRANSISTOR DTA144EK | |
| Q607 | 8-729-901-06 | TRANSISTOR DTA144EK | |
| Q608 | 8-729-901-06 | TRANSISTOR DTA144EK | |

# MA-41

| Ref. No. | Part No. | Description | Remark |
|---|---|---|---|
| Q609 | 8-729-901-01 | TRANSISTOR DTC144EK | |
| Q610 | 8-729-901-06 | TRANSISTOR DTA144EK | |
| Q611 | 8-729-901-06 | TRANSISTOR DTA144EK | |
| Q612 | 8-729-901-06 | TRANSISTOR DTA144EK | |
| Q613 | 8-729-901-01 | TRANSISTOR DTC144EK | |
| Q615 | 8-729-901-06 | TRANSISTOR DTA144EK | |
| Q616 | 8-729-901-06 | TRANSISTOR DTA144EK | |
| Q617 | 8-729-901-06 | TRANSISTOR DTA144EK | |
| Q618 | 8-729-901-06 | TRANSISTOR DTA144EK | |
| Q619 | 8-729-901-06 | TRANSISTOR DTA144EK | |
| Q620 | 8-729-901-01 | TRANSISTOR DTC144EK | |
| Q621 | 8-729-901-01 | TRANSISTOR DTC144EK | |
| Q622 | 8-729-901-06 | TRANSISTOR DTA144EK | |
| Q623 | 8-729-901-01 | TRANSISTOR DTC144EK | |
| Q624 | 8-729-901-06 | TRANSISTOR DTA144EK | |
| Q625 | 8-729-901-06 | TRANSISTOR DTA144EK | |
| Q626 | 8-729-901-06 | TRANSISTOR DTA144EK | |
| Q627 | 8-729-901-06 | TRANSISTOR DTA144EK | |
| Q628 | 8-729-901-01 | TRANSISTOR DTC144EK | |
| Q629 | 8-729-901-01 | TRANSISTOR DTC144EK | |
| Q630 | 8-729-901-06 | TRANSISTOR DTA144EK | |
| Q635 | 8-729-901-06 | TRANSISTOR DTA144EK | |
| Q636 | 8-729-901-06 | TRANSISTOR DTA144EK | |
| Q637 | 8-729-901-06 | TRANSISTOR DTA144EK | |
| Q638 | 8-729-901-06 | TRANSISTOR DTA144EK | |
| Q639 | 8-729-901-06 | TRANSISTOR DTA144EK | |
| Q640 | 8-729-901-01 | TRANSISTOR DTC144EK | |
| Q641 | 8-729-901-01 | TRANSISTOR DTC144EK | |
| Q642 | 8-729-901-06 | TRANSISTOR DTA144EK | |
| Q643 | 8-729-901-06 | TRANSISTOR DTA144EK | |
| Q644 | 8-729-901-01 | TRANSISTOR DTC144EK | |
| Q645 | 8-729-901-01 | TRANSISTOR DTC144EK | |
| Q651 | 8-729-901-06 | TRANSISTOR DTA144EK | |
| Q652 | 8-729-901-06 | TRANSISTOR DTA144EK | |
| Q653 | 8-729-901-06 | TRANSISTOR DTA144EK | |
| Q654 | 8-729-901-06 | TRANSISTOR DTA144EK | |
| Q655 | 8-729-901-06 | TRANSISTOR DTA144EK | |
| Q656 | 8-729-901-06 | TRANSISTOR DTA144EK | |
| Q657 | 8-729-901-06 | TRANSISTOR DTA144EK | |
| Q658 | 8-729-901-06 | TRANSISTOR DTA144EK | |
| Q659 | 8-729-901-01 | TRANSISTOR DTC144EK | |
| Q660 | 8-729-901-01 | TRANSISTOR DTC144EK | |
| Q661 | 8-729-901-06 | TRANSISTOR DTA144EK | |
| Q662 | 8-729-901-01 | TRANSISTOR DTC144EK | |
| Q663 | 8-729-901-06 | TRANSISTOR DTA144EK | |
| Q664 | 8-729-901-01 | TRANSISTOR DTC144EK | |
| Q665 | 8-729-901-01 | TRANSISTOR DTC144EK | |
| Q666 | 8-729-901-01 | TRANSISTOR DTC144EK | |
| Q667 | 8-729-901-01 | TRANSISTOR DTC144EK | |

| Ref. No. | Part No. | Description | Remark |
|---|---|---|---|
| Q668 | 8-729-901-01 | TRANSISTOR DTC144EK | |
| Q669 | 8-729-901-06 | TRANSISTOR DTA144EK | |
| Q670 | 8-729-901-06 | TRANSISTOR DTA144EK | |
| Q673 | 8-729-901-06 | TRANSISTOR DTA144EK | |
| Q674 | 8-729-901-01 | TRANSISTOR DTC144EK | |
| Q675 | 8-729-216-22 | TRANSISTOR 2SA1162 | |
| Q676 | 8-729-901-01 | TRANSISTOR DTC144EK | |
| Q677 | 8-729-901-06 | TRANSISTOR DTA144EK | |
| Q678 | 8-729-100-66 | TRANSISTOR 2SC1623 | |
| Q679 | 8-729-216-22 | TRANSISTOR 2SA1162 | |
| Q680 | 8-729-901-01 | TRANSISTOR DTC144EK | |
| Q681 | 8-729-901-01 | TRANSISTOR DTC144EK | |
| Q683 | 8-729-901-06 | TRANSISTOR DTA144EK | |
| Q684 | 8-729-901-06 | TRANSISTOR DTA144EK | |
| Q686 | 8-729-901-06 | TRANSISTOR DTA144EK | |
| Q687 | 8-729-901-06 | TRANSISTOR DTA144EK | |
| Q688 | 8-729-901-06 | TRANSISTOR DTA144EK | |
| Q691 | 8-729-901-06 | TRANSISTOR DTA144EK | |
| Q692 | 8-729-901-06 | TRANSISTOR DTA144EK | |
| Q693 | 8-729-901-06 | TRANSISTOR DTA144EK | |
| | | < RESISTOR > | |
| R001 | 1-216-113-00 | METAL CHIP 470K 5% 1/10W | |
| R002 | 1-216-073-00 | METAL CHIP 10K 5% 1/10W | |
| R003 | 1-216-049-00 | METAL CHIP 1K 5% 1/10W | |
| R004 | 1-216-094-00 | METAL GLAZE 75K 5% 1/10W | |
| R005 | 1-216-091-00 | METAL CHIP 56K 5% 1/10W | |
| R006 | 1-216-083-00 | METAL CHIP 27K 5% 1/10W | |
| R007 | 1-216-077-00 | METAL CHIP 15K 5% 1/10W | |
| R008 | 1-216-073-00 | METAL CHIP 10K 5% 1/10W | |
| R009 | 1-216-073-00 | METAL CHIP 10K 5% 1/10W | |
| R010 | 1-216-073-00 | METAL CHIP 10K 5% 1/10W | |
| R011 | 1-216-083-00 | METAL CHIP 27K 5% 1/10W | |
| R012 | 1-216-079-00 | METAL CHIP 18K 5% 1/10W | |
| R013 | 1-216-083-00 | METAL CHIP 27K 5% 1/10W | |
| R014 | 1-216-065-00 | METAL CHIP 4.7K 5% 1/10W | |
| R015 | 1-216-057-00 | METAL CHIP 2.2K 5% 1/10W | |
| R016 | 1-216-049-00 | METAL CHIP 1K 5% 1/10W | |
| R017 | 1-216-073-00 | METAL CHIP 10K 5% 1/10W | |
| R018 | 1-216-089-00 | METAL CHIP 47K 5% 1/10W | |
| R024 | 1-216-057-00 | METAL CHIP 2.2K 5% 1/10W | |
| R025 | 1-216-068-00 | METAL CHIP 6.2K 5% 1/10W | |
| R026 | 1-216-057-00 | METAL CHIP 2.2K 5% 1/10W | |
| R027 | 1-216-057-00 | METAL CHIP 2.2K 5% 1/10W | |
| R028 | 1-216-057-00 | METAL CHIP 2.2K 5% 1/10W | |
| R029 | 1-216-068-00 | METAL CHIP 6.2K 5% 1/10W | |
| R030 | 1-216-057-00 | METAL CHIP 2.2K 5% 1/10W | |
| R031 | 1-216-067-00 | METAL CHIP 5.6K 5% 1/10W | |

| Ref. No. | Part No. | Description | | | | Remark |
|---|---|---|---|---|---|---|
| R032 | 1-216-057-00 | METAL CHIP | 2.2K | 5% | 1/10W | |
| R033 | 1-216-057-00 | METAL CHIP | 2.2K | 5% | 1/10W | |
| R034 | 1-216-057-00 | METAL CHIP | 2.2K | 5% | 1/10W | |
| R035 | 1-216-067-00 | METAL CHIP | 5.6K | 5% | 1/10W | |
| R036 | 1-216-093-00 | METAL CHIP | 68K | 5% | 1/10W | |
| R041 | 1-216-083-00 | METAL CHIP | 27K | 5% | 1/10W | |
| R042 | 1-216-083-00 | METAL CHIP | 27K | 5% | 1/10W | |
| R043 | 1-216-100-00 | METAL GLAZE | 130K | 5% | 1/10W | |
| R044 | 1-216-089-00 | METAL CHIP | 47K | 5% | 1/10W | |
| R045 | 1-216-089-00 | METAL CHIP | 47K | 5% | 1/10W | |
| R046 | 1-216-113-00 | METAL CHIP | 470K | 5% | 1/10W | |
| R047 | 1-216-091-00 | METAL CHIP | 56K | 5% | 1/10W | |
| R048 | 1-216-095-00 | METAL CHIP | 82K | 5% | 1/10W | |
| R049 | 1-216-295-00 | METAL CHIP | 0 | 5% | 1/10W | |
| R051 | 1-216-089-00 | METAL CHIP | 47K | 5% | 1/10W | |
| R055 | 1-216-089-00 | METAL CHIP | 47K | 5% | 1/10W | |
| R056 | 1-216-081-00 | METAL CHIP | 22K | 5% | 1/10W | |
| R057 | 1-216-295-00 | METAL CHIP | 0 | 5% | 1/10W | |
| R059 | 1-216-073-00 | METAL CHIP | 10K | 5% | 1/10W | |
| R060 | 1-216-073-00 | METAL CHIP | 10K | 5% | 1/10W | |
| R061 | 1-216-089-00 | METAL CHIP | 47K | 5% | 1/10W | |
| R062 | 1-216-091-00 | METAL CHIP | 56K | 5% | 1/10W | |
| R063 | 1-216-097-00 | METAL CHIP | 100K | 5% | 1/10W | |
| R067 | 1-216-082-00 | METAL GLAZE | 24K | 5% | 1/10W | |
| R068 | 1-216-099-00 | METAL CHIP | 120K | 5% | 1/10W | |
| R069 | 1-216-748-11 | METAL CHIP | 39K | 5% | 1/10W | |
| R070 | 1-216-073-00 | METAL CHIP | 10K | 5% | 1/10W | |
| R071 | 1-216-089-00 | METAL CHIP | 47K | 5% | 1/10W | |
| R073 | 1-216-295-00 | METAL CHIP | 0 | 5% | 1/10W | |
| R075 | 1-216-295-00 | METAL CHIP | 0 | 5% | 1/10W | |
| R078 | 1-216-060-00 | METAL GLAZE | 3K | 5% | 1/10W | |
| R079 | 1-216-075-00 | METAL CHIP | 12K | 5% | 1/10W | |
| R080 | 1-216-295-00 | METAL CHIP | 0 | 5% | 1/10W | |
| R083 | 1-216-295-00 | METAL CHIP | 0 | 5% | 1/10W | |
| R085 | 1-216-089-00 | METAL CHIP | 47K | 5% | 1/10W | |
| R086 | 1-216-089-00 | METAL CHIP | 47K | 5% | 1/10W | |
| R087 | 1-216-089-00 | METAL CHIP | 47K | 5% | 1/10W | |
| R091 | 1-216-065-00 | METAL CHIP | 4.7K | 5% | 1/10W | |
| R092 | 1-216-089-00 | METAL CHIP | 47K | 5% | 1/10W | |
| R093 | 1-216-057-00 | METAL CHIP | 2.2K | 5% | 1/10W | |
| R095 | 1-216-295-00 | METAL CHIP | 0 | 5% | 1/10W | |
| R096 | 1-216-057-00 | METAL CHIP | 2.2K | 5% | 1/10W | |
| R097 | 1-216-089-00 | METAL CHIP | 47K | 5% | 1/10W | |
| R098 | 1-216-065-00 | METAL CHIP | 4.7K | 5% | 1/10W | |
| R099 | 1-216-073-00 | METAL CHIP | 10K | 5% | 1/10W | |
| R100 | 1-216-049-00 | METAL CHIP | 1K | 5% | 1/10W | |
| R101 | 1-216-083-00 | METAL CHIP | 27K | 5% | 1/10W | |
| R102 | 1-216-079-00 | METAL CHIP | 18K | 5% | 1/10W | |
| R103 | 1-216-083-00 | METAL CHIP | 27K | 5% | 1/10W | |

| Ref. No. | Part No. | Description | | | | Remark |
|---|---|---|---|---|---|---|
| R104 | 1-216-073-00 | METAL CHIP | 10K | 5% | 1/10W | |
| R105 | 1-216-097-00 | METAL CHIP | 100K | 5% | 1/10W | |
| R106 | 1-216-089-00 | METAL CHIP | 47K | 5% | 1/10W | |
| R109 | 1-216-097-00 | METAL CHIP | 100K | 5% | 1/10W | |
| R110 | 1-216-097-00 | METAL CHIP | 100K | 5% | 1/10W | |
| R111 | 1-216-057-00 | METAL CHIP | 2.2K | 5% | 1/10W | |
| R112 | 1-216-068-00 | METAL CHIP | 6.2K | 5% | 1/10W | |
| R113 | 1-216-071-00 | METAL CHIP | 8.2K | 5% | 1/10W | |
| R114 | 1-216-057-00 | METAL CHIP | 2.2K | 5% | 1/10W | |
| R115 | 1-216-057-00 | METAL CHIP | 2.2K | 5% | 1/10W | |
| R116 | 1-216-057-00 | METAL CHIP | 2.2K | 5% | 1/10W | |
| R117 | 1-216-068-00 | METAL CHIP | 6.2K | 5% | 1/10W | |
| R118 | 1-216-077-00 | METAL CHIP | 15K | 5% | 1/10W | |
| R121 | 1-216-073-00 | METAL CHIP | 10K | 5% | 1/10W | |
| R122 | 1-216-083-00 | METAL CHIP | 27K | 5% | 1/10W | |
| R123 | 1-216-094-00 | METAL GLAZE | 75K | 5% | 1/10W | |
| R124 | 1-216-091-00 | METAL CHIP | 56K | 5% | 1/10W | |
| R125 | 1-216-049-00 | METAL CHIP | 1K | 5% | 1/10W | |
| R126 | 1-216-073-00 | METAL CHIP | 10K | 5% | 1/10W | |
| R127 | 1-216-113-00 | METAL CHIP | 470K | 5% | 1/10W | |
| R128 | 1-216-073-00 | METAL CHIP | 10K | 5% | 1/10W | |
| R131 | 1-216-081-00 | METAL CHIP | 22K | 5% | 1/10W | |
| R132 | 1-216-092-00 | METAL GLAZE | 62K | 5% | 1/10W | |
| R133 | 1-216-081-00 | METAL CHIP | 22K | 5% | 1/10W | |
| R134 | 1-216-081-00 | METAL CHIP | 22K | 5% | 1/10W | |
| R135 | 1-216-081-00 | METAL CHIP | 22K | 5% | 1/10W | |
| R136 | 1-216-092-00 | METAL GLAZE | 62K | 5% | 1/10W | |
| R137 | 1-216-101-00 | METAL CHIP | 150K | 5% | 1/10W | |
| R138 | 1-216-073-00 | METAL CHIP | 10K | 5% | 1/10W | |
| R139 | 1-216-107-00 | METAL CHIP | 270K | 5% | 1/10W | |
| R140 | 1-216-094-00 | METAL GLAZE | 75K | 5% | 1/10W | |
| R141 | 1-216-091-00 | METAL CHIP | 56K | 5% | 1/10W | |
| R142 | 1-216-061-00 | METAL CHIP | 3.3K | 5% | 1/10W | |
| R143 | 1-216-069-00 | METAL CHIP | 6.8K | 5% | 1/10W | |
| R150 | 1-216-073-00 | METAL CHIP | 10K | 5% | 1/10W | |
| R201 | 1-216-113-00 | METAL CHIP | 470K | 5% | 1/10W | |
| R202 | 1-216-073-00 | METAL CHIP | 10K | 5% | 1/10W | |
| R203 | 1-216-049-00 | METAL CHIP | 1K | 5% | 1/10W | |
| R204 | 1-216-094-00 | METAL GLAZE | 75K | 5% | 1/10W | |
| R205 | 1-216-091-00 | METAL CHIP | 56K | 5% | 1/10W | |
| R206 | 1-216-083-00 | METAL CHIP | 27K | 5% | 1/10W | |
| R207 | 1-216-077-00 | METAL CHIP | 15K | 5% | 1/10W | |
| R208 | 1-216-073-00 | METAL CHIP | 10K | 5% | 1/10W | |
| R209 | 1-216-073-00 | METAL CHIP | 10K | 5% | 1/10W | |
| R210 | 1-216-073-00 | METAL CHIP | 10K | 5% | 1/10W | |
| R211 | 1-216-083-00 | METAL CHIP | 27K | 5% | 1/10W | |
| R212 | 1-216-079-00 | METAL CHIP | 18K | 5% | 1/10W | |
| R213 | 1-216-083-00 | METAL CHIP | 27K | 5% | 1/10W | |
| R214 | 1-216-065-00 | METAL CHIP | 4.7K | 5% | 1/10W | |

# MA-41

| Ref. No. | Part No. | Description | | | | Remark |
|---|---|---|---|---|---|---|
| R215 | 1-216-057-00 | METAL CHIP | 2.2K | 5% | 1/10W | |
| R216 | 1-216-049-00 | METAL CHIP | 1K | 5% | 1/10W | |
| R217 | 1-216-073-00 | METAL CHIP | 10K | 5% | 1/10W | |
| R218 | 1-216-089-00 | METAL CHIP | 47K | 5% | 1/10W | |
| R224 | 1-216-057-00 | METAL CHIP | 2.2K | 5% | 1/10W | |
| R225 | 1-216-068-00 | METAL CHIP | 6.2K | 5% | 1/10W | |
| R226 | 1-216-057-00 | METAL CHIP | 2.2K | 5% | 1/10W | |
| R227 | 1-216-057-00 | METAL CHIP | 2.2K | 5% | 1/10W | |
| R228 | 1-216-057-00 | METAL CHIP | 2.2K | 5% | 1/10W | |
| R229 | 1-216-068-00 | METAL CHIP | 6.2K | 5% | 1/10W | |
| R230 | 1-216-057-00 | METAL CHIP | 2.2K | 5% | 1/10W | |
| R231 | 1-216-067-00 | METAL CHIP | 5.6K | 5% | 1/10W | |
| R232 | 1-216-057-00 | METAL CHIP | 2.2K | 5% | 1/10W | |
| R233 | 1-216-057-00 | METAL CHIP | 2.2K | 5% | 1/10W | |
| R234 | 1-216-057-00 | METAL CHIP | 2.2K | 5% | 1/10W | |
| R235 | 1-216-067-00 | METAL CHIP | 5.6K | 5% | 1/10W | |
| R236 | 1-216-093-00 | METAL CHIP | 68K | 5% | 1/10W | |
| R241 | 1-216-083-00 | METAL CHIP | 27K | 5% | 1/10W | |
| R242 | 1-216-083-00 | METAL CHIP | 27K | 5% | 1/10W | |
| R243 | 1-216-100-00 | METAL GLAZE | 130K | 5% | 1/10W | |
| R244 | 1-216-089-00 | METAL CHIP | 47K | 5% | 1/10W | |
| R245 | 1-216-089-00 | METAL CHIP | 47K | 5% | 1/10W | |
| R246 | 1-216-113-00 | METAL CHIP | 470K | 5% | 1/10W | |
| R247 | 1-216-091-00 | METAL CHIP | 56K | 5% | 1/10W | |
| R248 | 1-216-095-00 | METAL CHIP | 82K | 5% | 1/10W | |
| R249 | 1-216-295-00 | METAL CHIP | 0 | 5% | 1/10W | |
| R251 | 1-216-089-00 | METAL CHIP | 47K | 5% | 1/10W | |
| R255 | 1-216-089-00 | METAL CHIP | 47K | 5% | 1/10W | |
| R256 | 1-216-081-00 | METAL CHIP | 22K | 5% | 1/10W | |
| R257 | 1-216-295-00 | METAL CHIP | 0 | 5% | 1/10W | |
| R259 | 1-216-073-00 | METAL CHIP | 10K | 5% | 1/10W | |
| R260 | 1-216-073-00 | METAL CHIP | 10K | 5% | 1/10W | |
| R261 | 1-216-089-00 | METAL CHIP | 47K | 5% | 1/10W | |
| R262 | 1-216-091-00 | METAL CHIP | 56K | 5% | 1/10W | |
| R263 | 1-216-097-00 | METAL CHIP | 100K | 5% | 1/10W | |
| R267 | 1-216-082-00 | METAL GLAZE | 24K | 5% | 1/10W | |
| R268 | 1-216-099-00 | METAL CHIP | 120K | 5% | 1/10W | |
| R269 | 1-216-748-11 | METAL CHIP | 39K | 5% | 1/10W | |
| R270 | 1-216-073-00 | METAL CHIP | 10K | 5% | 1/10W | |
| R271 | 1-216-089-00 | METAL CHIP | 47K | 5% | 1/10W | |
| R273 | 1-216-295-00 | METAL CHIP | 0 | 5% | 1/10W | |
| R275 | 1-216-295-00 | METAL CHIP | 0 | 5% | 1/10W | |
| R278 | 1-216-060-00 | METAL GLAZE | 3K | 5% | 1/10W | |
| R279 | 1-216-075-00 | METAL CHIP | 12K | 5% | 1/10W | |
| R280 | 1-216-295-00 | METAL CHIP | 0 | 5% | 1/10W | |
| R283 | 1-216-295-00 | METAL CHIP | 0 | 5% | 1/10W | |
| R285 | 1-216-089-00 | METAL CHIP | 47K | 5% | 1/10W | |
| R286 | 1-216-089-00 | METAL CHIP | 47K | 5% | 1/10W | |
| R287 | 1-216-089-00 | METAL CHIP | 47K | 5% | 1/10W | |
| R291 | 1-216-065-00 | METAL CHIP | 4.7K | 5% | 1/10W | |
| R292 | 1-216-089-00 | METAL CHIP | 47K | 5% | 1/10W | |
| R293 | 1-216-057-00 | METAL CHIP | 2.2K | 5% | 1/10W | |
| R295 | 1-216-295-00 | METAL CHIP | 0 | 5% | 1/10W | |
| R296 | 1-216-057-00 | METAL CHIP | 2.2K | 5% | 1/10W | |
| R297 | 1-216-089-00 | METAL CHIP | 47K | 5% | 1/10W | |
| R298 | 1-216-065-00 | METAL CHIP | 4.7K | 5% | 1/10W | |
| R299 | 1-216-073-00 | METAL CHIP | 10K | 5% | 1/10W | |
| R300 | 1-216-049-00 | METAL CHIP | 1K | 5% | 1/10W | |
| R301 | 1-216-083-00 | METAL CHIP | 27K | 5% | 1/10W | |
| R302 | 1-216-079-00 | METAL CHIP | 18K | 5% | 1/10W | |
| R303 | 1-216-083-00 | METAL CHIP | 27K | 5% | 1/10W | |
| R304 | 1-216-073-00 | METAL CHIP | 10K | 5% | 1/10W | |
| R305 | 1-216-097-00 | METAL CHIP | 100K | 5% | 1/10W | |
| R306 | 1-216-089-00 | METAL CHIP | 47K | 5% | 1/10W | |
| R311 | 1-216-057-00 | METAL CHIP | 2.2K | 5% | 1/10W | |
| R312 | 1-216-068-00 | METAL CHIP | 6.2K | 5% | 1/10W | |
| R313 | 1-216-071-00 | METAL CHIP | 8.2K | 5% | 1/10W | |
| R314 | 1-216-057-00 | METAL CHIP | 2.2K | 5% | 1/10W | |
| R315 | 1-216-057-00 | METAL CHIP | 2.2K | 5% | 1/10W | |
| R316 | 1-216-057-00 | METAL CHIP | 2.2K | 5% | 1/10W | |
| R317 | 1-216-068-00 | METAL CHIP | 6.2K | 5% | 1/10W | |
| R318 | 1-216-077-00 | METAL CHIP | 15K | 5% | 1/10W | |
| R321 | 1-216-073-00 | METAL CHIP | 10K | 5% | 1/10W | |
| R322 | 1-216-083-00 | METAL CHIP | 27K | 5% | 1/10W | |
| R323 | 1-216-094-00 | METAL GLAZE | 75K | 5% | 1/10W | |
| R324 | 1-216-091-00 | METAL CHIP | 56K | 5% | 1/10W | |
| R325 | 1-216-049-00 | METAL CHIP | 1K | 5% | 1/10W | |
| R326 | 1-216-073-00 | METAL CHIP | 10K | 5% | 1/10W | |
| R327 | 1-216-113-00 | METAL CHIP | 470K | 5% | 1/10W | |
| R328 | 1-216-073-00 | METAL CHIP | 10K | 5% | 1/10W | |
| R331 | 1-216-081-00 | METAL CHIP | 22K | 5% | 1/10W | |
| R332 | 1-216-092-00 | METAL GLAZE | 62K | 5% | 1/10W | |
| R333 | 1-216-081-00 | METAL CHIP | 22K | 5% | 1/10W | |
| R334 | 1-216-081-00 | METAL CHIP | 22K | 5% | 1/10W | |
| R335 | 1-216-081-00 | METAL CHIP | 22K | 5% | 1/10W | |
| R336 | 1-216-092-00 | METAL GLAZE | 62K | 5% | 1/10W | |
| R337 | 1-216-101-00 | METAL CHIP | 150K | 5% | 1/10W | |
| R338 | 1-216-073-00 | METAL CHIP | 10K | 5% | 1/10W | |
| R339 | 1-216-107-00 | METAL CHIP | 270K | 5% | 1/10W | |
| R340 | 1-216-094-00 | METAL GLAZE | 75K | 5% | 1/10W | |
| R341 | 1-216-091-00 | METAL CHIP | 56K | 5% | 1/10W | |
| R342 | 1-216-061-00 | METAL CHIP | 3.3K | 5% | 1/10W | |
| R343 | 1-216-069-00 | METAL CHIP | 6.8K | 5% | 1/10W | |
| R350 | 1-216-073-00 | METAL CHIP | 10K | 5% | 1/10W | |
| R401 | 1-216-073-00 | METAL CHIP | 10K | 5% | 1/10W | |
| R402 | 1-216-057-00 | METAL CHIP | 2.2K | 5% | 1/10W | |
| R403 | 1-216-073-00 | METAL CHIP | 10K | 5% | 1/10W | |

| Ref. No. | Part No. | Description | | | | Remark |
|---|---|---|---|---|---|---|
| R404 | 1-216-049-00 | METAL CHIP | 1K | 5% | 1/10W | |
| R405 | 1-216-065-00 | METAL CHIP | 4.7K | 5% | 1/10W | |
| R406 | 1-216-295-00 | METAL CHIP | 0 | 5% | 1/10W | |
| R408 | 1-216-077-00 | METAL CHIP | 15K | 5% | 1/10W | |
| R409 | 1-216-077-00 | METAL CHIP | 15K | 5% | 1/10W | |
| R410 | 1-216-073-00 | METAL CHIP | 10K | 5% | 1/10W | |
| R411 | 1-216-079-00 | METAL CHIP | 18K | 5% | 1/10W | |
| R412 | 1-216-078-00 | METAL GLAZE | 16K | 5% | 1/10W | |
| R413 | 1-216-081-00 | METAL CHIP | 22K | 5% | 1/10W | |
| R414 | 1-216-089-00 | METAL CHIP | 47K | 5% | 1/10W | |
| R418 | 1-216-073-00 | METAL CHIP | 10K | 5% | 1/10W | |
| R419 | 1-216-097-00 | METAL CHIP | 100K | 5% | 1/10W | |
| R420 | 1-216-097-00 | METAL CHIP | 100K | 5% | 1/10W | |
| R421 | 1-216-097-00 | METAL CHIP | 100K | 5% | 1/10W | |
| R430 | 1-216-057-00 | METAL CHIP | 2.2K | 5% | 1/10W | |
| R431 | 1-216-067-00 | METAL CHIP | 5.6K | 5% | 1/10W | |
| R432 | 1-216-057-00 | METAL CHIP | 2.2K | 5% | 1/10W | |
| R433 | 1-216-057-00 | METAL CHIP | 2.2K | 5% | 1/10W | |
| R434 | 1-216-057-00 | METAL CHIP | 2.2K | 5% | 1/10W | |
| R435 | 1-216-067-00 | METAL CHIP | 5.6K | 5% | 1/10W | |
| R436 | 1-216-093-00 | METAL CHIP | 68K | 5% | 1/10W | |
| R441 | 1-216-083-00 | METAL CHIP | 27K | 5% | 1/10W | |
| R442 | 1-216-083-00 | METAL CHIP | 27K | 5% | 1/10W | |
| R443 | 1-216-100-00 | METAL GLAZE | 130K | 5% | 1/10W | |
| R444 | 1-216-089-00 | METAL CHIP | 47K | 5% | 1/10W | |
| R445 | 1-216-089-00 | METAL CHIP | 47K | 5% | 1/10W | |
| R447 | 1-216-295-00 | METAL CHIP | 0 | 5% | 1/10W | |
| R448 | 1-216-073-00 | METAL CHIP | 10K | 5% | 1/10W | |
| R449 | 1-216-083-00 | METAL CHIP | 27K | 5% | 1/10W | |
| R450 | 1-216-079-00 | METAL CHIP | 18K | 5% | 1/10W | |
| R451 | 1-216-089-00 | METAL CHIP | 47K | 5% | 1/10W | |
| R452 | 1-216-077-00 | METAL CHIP | 15K | 5% | 1/10W | |
| R453 | 1-216-077-00 | METAL CHIP | 15K | 5% | 1/10W | |
| R455 | 1-216-089-00 | METAL CHIP | 47K | 5% | 1/10W | |
| R456 | 1-216-081-00 | METAL CHIP | 22K | 5% | 1/10W | |
| R457 | 1-216-295-00 | METAL CHIP | 0 | 5% | 1/10W | |
| R459 | 1-216-073-00 | METAL CHIP | 10K | 5% | 1/10W | |
| R460 | 1-216-073-00 | METAL CHIP | 10K | 5% | 1/10W | |
| R461 | 1-216-089-00 | METAL CHIP | 47K | 5% | 1/10W | |
| R462 | 1-216-091-00 | METAL CHIP | 56K | 5% | 1/10W | |
| R463 | 1-216-097-00 | METAL CHIP | 100K | 5% | 1/10W | |
| R467 | 1-216-082-00 | METAL GLAZE | 24K | 5% | 1/10W | |
| R468 | 1-216-101-00 | METAL CHIP | 150K | 5% | 1/10W | |
| R469 | 1-216-090-00 | METAL CHIP | 51K | 5% | 1/10W | |
| R470 | 1-216-073-00 | METAL CHIP | 10K | 5% | 1/10W | |
| R471 | 1-216-089-00 | METAL CHIP | 47K | 5% | 1/10W | |
| R473 | 1-216-295-00 | METAL CHIP | 0 | 5% | 1/10W | |
| R475 | 1-216-295-00 | METAL CHIP | 0 | 5% | 1/10W | |
| R478 | 1-216-060-00 | METAL GLAZE | 3K | 5% | 1/10W | |
| R479 | 1-216-073-00 | METAL CHIP | 10K | 5% | 1/10W | |
| R480 | 1-216-068-00 | METAL CHIP | 6.2K | 5% | 1/10W | |
| R483 | 1-216-295-00 | METAL CHIP | 0 | 5% | 1/10W | |
| R485 | 1-216-089-00 | METAL CHIP | 47K | 5% | 1/10W | |
| R486 | 1-216-089-00 | METAL CHIP | 47K | 5% | 1/10W | |
| R487 | 1-216-089-00 | METAL CHIP | 47K | 5% | 1/10W | |
| R491 | 1-216-065-00 | METAL CHIP | 4.7K | 5% | 1/10W | |
| R492 | 1-216-089-00 | METAL CHIP | 47K | 5% | 1/10W | |
| R493 | 1-216-057-00 | METAL CHIP | 2.2K | 5% | 1/10W | |
| R495 | 1-216-295-00 | METAL CHIP | 0 | 5% | 1/10W | |
| R496 | 1-216-057-00 | METAL CHIP | 2.2K | 5% | 1/10W | |
| R497 | 1-216-089-00 | METAL CHIP | 47K | 5% | 1/10W | |
| R498 | 1-216-065-00 | METAL CHIP | 4.7K | 5% | 1/10W | |
| R499 | 1-216-073-00 | METAL CHIP | 10K | 5% | 1/10W | |
| R500 | 1-216-049-00 | METAL CHIP | 1K | 5% | 1/10W | |
| R501 | 1-216-295-00 | METAL CHIP | 0 | 5% | 1/10W | |
| R505 | 1-216-089-00 | METAL CHIP | 47K | 5% | 1/10W | |
| R511 | 1-216-081-00 | METAL CHIP | 22K | 5% | 1/10W | |
| R512 | 1-216-092-00 | METAL GLAZE | 62K | 5% | 1/10W | |
| R513 | 1-216-101-00 | METAL CHIP | 150K | 5% | 1/10W | |
| R514 | 1-216-081-00 | METAL CHIP | 22K | 5% | 1/10W | |
| R515 | 1-216-081-00 | METAL CHIP | 22K | 5% | 1/10W | |
| R516 | 1-216-081-00 | METAL CHIP | 22K | 5% | 1/10W | |
| R517 | 1-216-092-00 | METAL GLAZE | 62K | 5% | 1/10W | |
| R521 | 1-216-073-00 | METAL CHIP | 10K | 5% | 1/10W | |
| R522 | 1-216-107-00 | METAL CHIP | 270K | 5% | 1/10W | |
| R523 | 1-216-094-00 | METAL GLAZE | 75K | 5% | 1/10W | |
| R524 | 1-216-091-00 | METAL CHIP | 56K | 5% | 1/10W | |
| R525 | 1-216-049-00 | METAL CHIP | 1K | 5% | 1/10W | |
| R526 | 1-216-073-00 | METAL CHIP | 10K | 5% | 1/10W | |
| R527 | 1-216-113-00 | METAL CHIP | 470K | 5% | 1/10W | |
| R528 | 1-216-073-00 | METAL CHIP | 10K | 5% | 1/10W | |
| R532 | 1-216-295-00 | METAL CHIP | 0 | 5% | 1/10W | |
| R533 | 1-216-295-00 | METAL CHIP | 0 | 5% | 1/10W | |
| R535 | 1-216-089-00 | METAL CHIP | 47K | 5% | 1/10W | |
| R536 | 1-216-097-00 | METAL CHIP | 100K | 5% | 1/10W | |
| R537 | 1-216-097-00 | METAL CHIP | 100K | 5% | 1/10W | |
| R538 | 1-216-049-00 | METAL CHIP | 1K | 5% | 1/10W | |
| R539 | 1-216-073-00 | METAL CHIP | 10K | 5% | 1/10W | |
| R540 | 1-216-081-00 | METAL CHIP | 22K | 5% | 1/10W | |
| R541 | 1-216-101-00 | METAL CHIP | 150K | 5% | 1/10W | |
| R542 | 1-216-101-00 | METAL CHIP | 150K | 5% | 1/10W | |
| R543 | 1-216-073-00 | METAL CHIP | 10K | 5% | 1/10W | |
| R544 | 1-216-058-00 | METAL GLAZE | 2.4K | 5% | 1/10W | |
| R545 | 1-216-083-00 | METAL CHIP | 27K | 5% | 1/10W | |
| R546 | 1-216-081-00 | METAL CHIP | 22K | 5% | 1/10W | |
| R550 | 1-216-073-00 | METAL CHIP | 10K | 5% | 1/10W | |
| R601 | 1-216-073-00 | METAL CHIP | 10K | 5% | 1/10W | |
| R602 | 1-216-057-00 | METAL CHIP | 2.2K | 5% | 1/10W | |

# MA-41

| Ref.No. | Part No. | Description | | | | Remark |
|---|---|---|---|---|---|---|
| R603 | 1-216-059-00 | METAL CHIP | 2.7K | 5% | 1/10W | |
| R604 | 1-216-075-00 | METAL CHIP | 12K | 5% | 1/10W | |
| R605 | 1-216-083-00 | METAL CHIP | 27K | 5% | 1/10W | |
| R606 | 1-216-091-00 | METAL CHIP | 56K | 5% | 1/10W | |
| R607 | 1-216-091-00 | METAL CHIP | 56K | 5% | 1/10W | |
| R611 | 1-216-049-00 | METAL CHIP | 1K | 5% | 1/10W | |
| R612 | 1-216-073-00 | METAL CHIP | 10K | 5% | 1/10W | |
| R613 | 1-216-049-00 | METAL CHIP | 1K | 5% | 1/10W | |
| R614 | 1-216-073-00 | METAL CHIP | 10K | 5% | 1/10W | |
| R617 | 1-216-025-00 | METAL CHIP | 100 | 5% | 1/10W | |
| R618 | 1-216-081-00 | METAL CHIP | 22K | 5% | 1/10W | |
| R619 | 1-216-057-00 | METAL CHIP | 2.2K | 5% | 1/10W | |
| R620 | 1-216-081-00 | METAL CHIP | 22K | 5% | 1/10W | |
| R621 | 1-216-057-00 | METAL CHIP | 2.2K | 5% | 1/10W | |
| R622 | 1-216-089-00 | METAL CHIP | 47K | 5% | 1/10W | |
| R623 | 1-216-105-00 | METAL CHIP | 220K | 5% | 1/10W | |
| R624 | 1-216-105-00 | METAL CHIP | 220K | 5% | 1/10W | |
| R625 | 1-216-089-00 | METAL CHIP | 47K | 5% | 1/10W | |
| R626 | 1-216-089-00 | METAL CHIP | 47K | 5% | 1/10W | |
| R627 | 1-216-073-00 | METAL CHIP | 10K | 5% | 1/10W | |
| R628 | 1-216-073-00 | METAL CHIP | 10K | 5% | 1/10W | |
| R629 | 1-216-089-00 | METAL CHIP | 47K | 5% | 1/10W | |
| R630 | 1-216-103-00 | METAL CHIP | 180K | 5% | 1/10W | |
| R631 | 1-216-097-00 | METAL CHIP | 100K | 5% | 1/10W | |
| R632 | 1-216-097-00 | METAL CHIP | 100K | 5% | 1/10W | |
| R633 | 1-216-073-00 | METAL CHIP | 10K | 5% | 1/10W | |
| R634 | 1-216-097-00 | METAL CHIP | 100K | 5% | 1/10W | |
| R638 | 1-216-049-00 | METAL CHIP | 1K | 5% | 1/10W | |
| R639 | 1-216-049-00 | METAL CHIP | 1K | 5% | 1/10W | |
| R640 | 1-216-073-00 | METAL CHIP | 10K | 5% | 1/10W | |
| R641 | 1-216-073-00 | METAL CHIP | 10K | 5% | 1/10W | |
| R642 | 1-216-059-00 | METAL CHIP | 2.7K | 5% | 1/10W | |
| R643 | 1-216-065-00 | METAL CHIP | 4.7K | 5% | 1/10W | |
| R644 | 1-216-113-00 | METAL CHIP | 470K | 5% | 1/10W | |
| R645 | 1-216-113-00 | METAL CHIP | 470K | 5% | 1/10W | |
| R646 | 1-216-049-00 | METAL CHIP | 1K | 5% | 1/10W | |
| R647 | 1-216-079-00 | METAL CHIP | 18K | 5% | 1/10W | |
| R648 | 1-216-081-00 | METAL CHIP | 22K | 5% | 1/10W | |
| R649 | 1-216-065-00 | METAL CHIP | 4.7K | 5% | 1/10W | |
| R650 | 1-216-067-00 | METAL CHIP | 5.6K | 5% | 1/10W | |
| R651 | 1-216-089-00 | METAL CHIP | 47K | 5% | 1/10W | |
| R652 | 1-216-089-00 | METAL CHIP | 47K | 5% | 1/10W | |
| R653 | 1-216-089-00 | METAL CHIP | 47K | 5% | 1/10W | |
| R654 | 1-216-081-00 | METAL CHIP | 22K | 5% | 1/10W | |
| R655 | 1-216-089-00 | METAL CHIP | 47K | 5% | 1/10W | |
| R656 | 1-216-049-00 | METAL CHIP | 1K | 5% | 1/10W | |
| R657 | 1-216-073-00 | METAL CHIP | 10K | 5% | 1/10W | |
| R658 | 1-216-025-00 | METAL CHIP | 100 | 5% | 1/10W | |
| R661 | 1-216-097-00 | METAL CHIP | 100K | 5% | 1/10W | |

| Ref.No. | Part No. | Description | | | | Remark |
|---|---|---|---|---|---|---|
| R662 | 1-216-049-00 | METAL CHIP | 1K | 5% | 1/10W | |
| R663 | 1-216-097-00 | METAL CHIP | 100K | 5% | 1/10W | |
| R664 | 1-216-081-00 | METAL CHIP | 22K | 5% | 1/10W | |
| R665 | 1-216-089-00 | METAL CHIP | 47K | 5% | 1/10W | |
| R666 | 1-216-081-00 | METAL CHIP | 22K | 5% | 1/10W | |
| R667 | 1-216-097-00 | METAL CHIP | 100K | 5% | 1/10W | |
| R668 | 1-216-073-00 | METAL CHIP | 10K | 5% | 1/10W | |
| R669 | 1-216-089-00 | METAL CHIP | 47K | 5% | 1/10W | |
| R670 | 1-216-073-00 | METAL CHIP | 10K | 5% | 1/10W | |
| R671 | 1-216-049-00 | METAL CHIP | 1K | 5% | 1/10W | |
| R672 | 1-216-097-00 | METAL CHIP | 100K | 5% | 1/10W | |
| R673 | 1-216-105-00 | METAL CHIP | 220K | 5% | 1/10W | |
| R674 | 1-216-073-00 | METAL CHIP | 10K | 5% | 1/10W | |
| R675 | 1-216-105-00 | METAL CHIP | 220K | 5% | 1/10W | |
| R676 | 1-216-089-00 | METAL CHIP | 47K | 5% | 1/10W | |
| R677 | 1-216-089-00 | METAL CHIP | 47K | 5% | 1/10W | |
| R678 | 1-216-073-00 | METAL CHIP | 10K | 5% | 1/10W | |
| R679 | 1-216-089-00 | METAL CHIP | 47K | 5% | 1/10W | |
| R680 | 1-216-093-00 | METAL CHIP | 68K | 5% | 1/10W | |
| R681 | 1-216-089-00 | METAL CHIP | 47K | 5% | 1/10W | |
| R682 | 1-216-093-00 | METAL CHIP | 68K | 5% | 1/10W | |
| R683 | 1-216-089-00 | METAL CHIP | 47K | 5% | 1/10W | |
| R687 | 1-216-073-00 | METAL CHIP | 10K | 5% | 1/10W | |
| R688 | 1-216-089-00 | METAL CHIP | 47K | 5% | 1/10W | |
| R689 | 1-216-025-00 | METAL CHIP | 100 | 5% | 1/10W | |
| R690 | 1-216-089-00 | METAL CHIP | 47K | 5% | 1/10W | |
| R691 | 1-216-073-00 | METAL CHIP | 10K | 5% | 1/10W | |
| R692 | 1-216-085-00 | METAL CHIP | 33K | 5% | 1/10W | |
| R693 | 1-216-081-00 | METAL CHIP | 22K | 5% | 1/10W | |
| R694 | 1-216-081-00 | METAL CHIP | 22K | 5% | 1/10W | |
| R695 | 1-216-089-00 | METAL CHIP | 47K | 5% | 1/10W | |
| R696 | 1-216-089-00 | METAL CHIP | 47K | 5% | 1/10W | |
| R697 | 1-216-089-00 | METAL CHIP | 47K | 5% | 1/10W | |
| R698 | 1-216-085-00 | METAL CHIP | 33K | 5% | 1/10W | |
| R699 | 1-216-025-00 | METAL CHIP | 100 | 5% | 1/10W | |
| R700 | 1-216-089-00 | METAL CHIP | 47K | 5% | 1/10W | |
| R701 | 1-216-113-00 | METAL CHIP | 470K | 5% | 1/10W | |
| R702 | 1-216-105-00 | METAL CHIP | 220K | 5% | 1/10W | |
| R703 | 1-216-105-00 | METAL CHIP | 220K | 5% | 1/10W | |
| R704 | 1-216-089-00 | METAL CHIP | 47K | 5% | 1/10W | |
| R705 | 1-216-073-00 | METAL CHIP | 10K | 5% | 1/10W | |
| R706 | 1-216-089-00 | METAL CHIP | 47K | 5% | 1/10W | |
| R708 | 1-216-089-00 | METAL CHIP | 47K | 5% | 1/10W | |
| R709 | 1-216-089-00 | METAL CHIP | 47K | 5% | 1/10W | |
| R710 | 1-216-081-00 | METAL CHIP | 22K | 5% | 1/10W | |
| R711 | 1-216-089-00 | METAL CHIP | 47K | 5% | 1/10W | |
| R712 | 1-216-089-00 | METAL CHIP | 47K | 5% | 1/10W | |
| R713 | 1-216-097-00 | METAL CHIP | 100K | 5% | 1/10W | |

| Ref. No. | Part No. | Description | Remark |
|---|---|---|---|
| R721 | 1-216-089-00 | METAL CHIP 47K 5% 1/10W | |
| R722 | 1-216-089-00 | METAL CHIP 47K 5% 1/10W | |
| R723 | 1-216-073-00 | METAL CHIP 10K 5% 1/10W | |
| R724 | 1-216-073-00 | METAL CHIP 10K 5% 1/10W | |
| R725 | 1-216-089-00 | METAL CHIP 47K 5% 1/10W | |

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* A-7061-824-A MB-19 (P) BOARD, COMPLETE
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(Ref.No 7,000 Series)

* 4-911-047-01 VIBRATION CONTROL (D)

< CAPACITOR >

| Ref. No. | Part No. | Description | Remark |
|---|---|---|---|
| C601 | 1-163-035-00 | CERAMIC CHIP 0.047uF 50V | |
| C602 | 1-163-035-00 | CERAMIC CHIP 0.047uF 50V | |
| C603 | 1-163-093-00 | CERAMIC CHIP 10PF 5% 50V | |
| C604 | 1-163-093-00 | CERAMIC CHIP 10PF 5% 50V | |
| C605 | 1-163-035-00 | CERAMIC CHIP 0.047uF 50V | |
| C606 | 1-163-035-00 | CERAMIC CHIP 0.047uF 50V | |
| C607 | 1-163-035-00 | CERAMIC CHIP 0.047uF 50V | |
| C608 | 1-163-035-00 | CERAMIC CHIP 0.047uF 50V | |
| C609 | 1-124-234-00 | ELECT 22uF 20% 16V | |
| C610 | 1-163-035-00 | CERAMIC CHIP 0.047uF 50V | |
| C641 | 1-163-035-00 | CERAMIC CHIP 0.047uF 50V | |
| C651 | 1-163-141-00 | CERAMIC CHIP 0.001uF 5% 50V | |
| C652 | 1-124-234-00 | ELECT 22uF 20% 16V | |
| C653 | 1-163-035-00 | CERAMIC CHIP 0.047uF 50V | |
| C661 | 1-163-141-00 | CERAMIC CHIP 0.001uF 5% 50V | |
| C662 | 1-124-234-00 | ELECT 22uF 20% 16V | |
| C663 | 1-163-035-00 | CERAMIC CHIP 0.047uF 50V | |
| C671 | 1-124-584-00 | ELECT 100uF 20% 10V | |
| C672 | 1-135-091-00 | TANTALUM CHIP 1uF 20% 16V | |
| C673 | 1-124-584-00 | ELECT 100uF 20% 10V | |
| C674 | 1-164-232-11 | CERAMIC CHIP 0.01uF 50V | |
| C675 | 1-163-019-00 | CERAMIC CHIP 0.0068uF 10% 50V | |
| C676 | 1-124-584-00 | ELECT 100uF 20% 10V | |
| C677 | 1-163-038-00 | CERAMIC CHIP 0.1uF 25V | |
| C678 | 1-124-584-00 | ELECT 100uF 20% 10V | |
| C679 | 1-164-232-11 | CERAMIC CHIP 0.01uF 50V | |
| C680 | 1-135-155-21 | TANTALUM CHIP 4.7uF 10% 10V | |
| C681 | 1-124-584-00 | ELECT 100uF 20% 10V | |
| C682 | 1-135-157-21 | TANTALUM CHIP 10uF 20% 6.3V | |
| C683 | 1-164-232-11 | CERAMIC CHIP 0.01uF 50V | |

< CONNECTOR >

| Ref. No. | Part No. | Description | Remark |
|---|---|---|---|
| CN601 | 1-566-943-11 | CONNECTOR, BOARD TO BOARD 18P | |
| CN602 | 1-566-944-11 | CONNECTOR, BOARD TO BOARD 22P | |
| CN603 | 1-506-467-11 | CONNECTOR 2P, MALE | |
| CN605 | 1-506-473-11 | CONNECTOR 8P, MALE | |
| CN606 | 1-506-470-11 | CONNECTOR 5P, MALE | |
| CN923 | 1-506-474-11 | CONNECTOR 9P, MALE | |
| CN924 | 1-506-473-11 | CONNECTOR 8P, MALE | |

< DIODE >

| Ref. No. | Part No. | Description | Remark |
|---|---|---|---|
| D601 | 8-719-104-34 | DIODE 1S2835-T1 | |
| D602 | 8-719-104-34 | DIODE 1S2835-T1 | |
| D603 | 8-719-104-34 | DIODE 1S2835-T1 | |
| D604 | 8-719-400-18 | DIODE MA152WK | |
| D641 | 8-719-800-76 | DIODE 1SS226 | |
| D642 | 8-719-800-76 | DIODE 1SS226 | |

< IC >

| Ref. No. | Part No. | Description | Remark |
|---|---|---|---|
| IC004 | 8-752-322-57 | IC CXD1077M | |
| IC005 | 8-759-908-15 | IC TL431CLP | |
| IC601 | 8-759-149-34 | IC uPD75106G-591-1B | |
| IC603 | 8-759-300-71 | IC TC4053BFHB-TP1 | |
| IC651 | 8-759-603-27 | IC M5201FP | |
| IC661 | 8-759-603-27 | IC M5201FP | |
| IC671 | 8-741-150-50 | IC SBX1505-01 | |

< COIL >

| Ref. No. | Part No. | Description | Remark |
|---|---|---|---|
| L601 | 1-408-970-21 | INDUCTOR 10uH | |
| L602 | 1-408-970-21 | INDUCTOR 10uH | |
| L603 | 1-408-970-21 | INDUCTOR 10uH | |
| L604 | 1-408-948-00 | INDUCTOR 220uH | |
| L605 | 1-408-948-00 | INDUCTOR 220uH | |
| L641 | 1-410-393-11 | INDUCTOR CHIP 100uH | |
| L671 | 1-408-948-00 | INDUCTOR 220uH | |

< TRANSISTOR >

| Ref. No. | Part No. | Description | Remark |
|---|---|---|---|
| Q601 | 8-729-901-06 | TRANSISTOR DTA144EK | |
| Q602 | 8-729-901-01 | TRANSISTOR DTC144EK | |
| Q603 | 8-729-901-01 | TRANSISTOR DTC144EK | |
| Q604 | 8-729-901-01 | TRANSISTOR DTC144EK | |
| Q605 | 8-729-901-06 | TRANSISTOR DTA144EK | |
| Q606 | 8-729-901-06 | TRANSISTOR DTA144EK | |
| Q607 | 8-729-901-01 | TRANSISTOR DTC144EK | |
| Q608 | 8-729-901-01 | TRANSISTOR DTC144EK | |
| Q609 | 8-729-901-06 | TRANSISTOR DTA144EK | |
| Q671 | 8-729-100-66 | TRANSISTOR 2SC1623 | |

< RESISTOR >

| Ref. No. | Part No. | Description | Remark |
|---|---|---|---|
| R601 | 1-216-089-00 | METAL CHIP 47K 5% 1/10W | |
| R602 | 1-216-089-00 | METAL CHIP 47K 5% 1/10W | |
| R603 | 1-216-097-00 | METAL CHIP 100K 5% 1/10W | |
| R604 | 1-216-073-00 | METAL CHIP 10K 5% 1/10W | |
| R611 | 1-216-081-00 | METAL CHIP 22K 5% 1/10W | |

# MB-19 (P)

| Ref. No. | Part No. | Description | Remark |
|---|---|---|---|
| R612 | 1-216-081-00 | METAL CHIP 22K 5% 1/10W | |
| R613 | 1-216-081-00 | METAL CHIP 22K 5% 1/10W | |
| R614 | 1-216-081-00 | METAL CHIP 22K 5% 1/10W | |
| R615 | 1-216-081-00 | METAL CHIP 22K 5% 1/10W | |
| R616 | 1-216-081-00 | METAL CHIP 22K 5% 1/10W | |
| R617 | 1-216-081-00 | METAL CHIP 22K 5% 1/10W | |
| R618 | 1-216-079-00 | METAL CHIP 18K 5% 1/10W | |
| R619 | 1-216-081-00 | METAL CHIP 22K 5% 1/10W | |
| R625 | 1-216-041-00 | METAL CHIP 470 5% 1/10W | |
| R626 | 1-216-089-00 | METAL CHIP 47K 5% 1/10W | |
| R627 | 1-216-089-00 | METAL CHIP 47K 5% 1/10W | |
| R628 | 1-216-089-00 | METAL CHIP 47K 5% 1/10W | |
| R629 | 1-216-073-00 | METAL CHIP 10K 5% 1/10W | |
| R630 | 1-216-089-00 | METAL CHIP 47K 5% 1/10W | |
| R631 | 1-216-089-00 | METAL CHIP 47K 5% 1/10W | |
| R632 | 1-216-041-00 | METAL CHIP 470 5% 1/10W | |
| R633 | 1-216-089-00 | METAL CHIP 47K 5% 1/10W | |
| R634 | 1-216-097-00 | METAL CHIP 100K 5% 1/10W | |
| R635 | 1-216-049-00 | METAL CHIP 1K 5% 1/10W | |
| R636 | 1-216-049-00 | METAL CHIP 1K 5% 1/10W | |
| R637 | 1-216-073-00 | METAL CHIP 10K 5% 1/10W | |
| R638 | 1-216-073-00 | METAL CHIP 10K 5% 1/10W | |
| R639 | 1-216-073-00 | METAL CHIP 10K 5% 1/10W | |
| R641 | 1-216-072-00 | METAL CHIP 9.1K 5% 1/10W | |
| R642 | 1-216-081-00 | METAL CHIP 22K 5% 1/10W | |
| R643 | 1-216-089-00 | METAL CHIP 47K 5% 1/10W | |
| R644 | 1-216-099-00 | METAL CHIP 120K 5% 1/10W | |
| R645 | 1-216-072-00 | METAL CHIP 9.1K 5% 1/10W | |
| R646 | 1-216-081-00 | METAL CHIP 22K 5% 1/10W | |
| R647 | 1-216-089-00 | METAL CHIP 47K 5% 1/10W | |
| R648 | 1-216-099-00 | METAL CHIP 120K 5% 1/10W | |
| R649 | 1-216-061-00 | METAL CHIP 3.3K 5% 1/10W | |
| R651 | 1-216-093-00 | METAL CHIP 68K 5% 1/10W | |
| R652 | 1-216-065-00 | METAL CHIP 4.7K 5% 1/10W | |
| R653 | 1-216-093-00 | METAL CHIP 68K 5% 1/10W | |
| R654 | 1-216-047-00 | METAL CHIP 820 5% 1/10W | |
| R655 | 1-216-051-00 | METAL CHIP 1.2K 5% 1/10W | |
| R656 | 1-216-057-00 | METAL CHIP 2.2K 5% 1/10W | |
| R657 | 1-216-089-00 | METAL CHIP 47K 5% 1/10W | |
| R661 | 1-216-093-00 | METAL CHIP 68K 5% 1/10W | |
| R662 | 1-216-065-00 | METAL CHIP 4.7K 5% 1/10W | |
| R663 | 1-216-093-00 | METAL CHIP 68K 5% 1/10W | |
| R664 | 1-216-047-00 | METAL CHIP 820 5% 1/10W | |
| R665 | 1-216-051-00 | METAL CHIP 1.2K 5% 1/10W | |
| R666 | 1-216-057-00 | METAL CHIP 2.2K 5% 1/10W | |
| R667 | 1-216-089-00 | METAL CHIP 47K 5% 1/10W | |
| R671 | 1-216-295-00 | METAL CHIP 0 5% 1/10W | |
| R672 | 1-216-077-00 | METAL CHIP 15K 5% 1/10W | |
| R673 | 1-216-052-00 | METAL CHIP 1.3K 5% 1/10W | |

| Ref. No. | Part No. | Description | Remark |
|---|---|---|---|
| R674 | 1-216-077-00 | METAL CHIP 15K 5% 1/10W | |
| R675 | 1-216-057-00 | METAL CHIP 2.2K 5% 1/10W | |
| R676 | 1-216-045-00 | METAL CHIP 680 5% 1/10W | |
| R677 | 1-216-075-00 | METAL CHIP 12K 5% 1/10W | |
| R678 | 1-216-065-00 | METAL CHIP 4.7K 5% 1/10W | |
| R679 | 1-216-053-00 | METAL CHIP 1.5K 5% 1/10W | |
| R680 | 1-216-049-00 | METAL CHIP 1K 5% 1/10W | |
| R681 | 1-216-089-00 | METAL CHIP 47K 5% 1/10W | |
| R682 | 1-216-097-00 | METAL CHIP 100K 5% 1/10W | |
| R683 | 1-216-089-00 | METAL CHIP 47K 5% 1/10W | |
| | | < VARIABLE RESISTOR > | |
| RV001 | 1-230-524-11 | RES, ADJ, METAL 22K | |
| RV002 | 1-230-521-11 | RES, ADJ, METAL 2.2K | |
| RV031 | 1-230-521-11 | RES, ADJ, METAL 2.2K | |
| RV032 | 1-230-529-11 | RES, ADJ, METAL 470K | |
| RV051 | 1-230-524-11 | RES, ADJ, METAL 22K | |
| RV052 | 1-230-521-11 | RES, ADJ, METAL 2.2K | |
| | | < SWITCH > | |
| S641 | 1-554-371-51 | SWITCH, TACT (EJECT) | |
| S642 | 1-554-371-51 | SWITCH, TACT (PB) | |
| S643 | 1-554-371-51 | SWITCH, TACT (PAUSE) | |
| S644 | 1-554-371-51 | SWITCH, TACT (REW) | |
| S645 | 1-554-371-51 | SWITCH, TACT (STOP) | |
| S646 | 1-554-371-51 | SWITCH, TACT (REC) | |
| S647 | 1-554-371-51 | SWITCH, TACT (FF) | |
| S648 | 1-570-909-21 | SWITCH, TACTIL (REFLOW TYPE) (POWER) | |
| S649 | 1-554-371-51 | SWITCH, TACT (X-1) | |
| | | < FILTER > | |
| T603 | 1-235-398-11 | BPF | |
| T651 | 1-235-900-11 | FILTER, LOW PASS | |
| T661 | 1-235-900-11 | FILTER, LOW PASS | |
| | | < VIBRATOR > | |
| X601 | 1-567-121-00 | VIBRATOR, CRYSTAL (4.19430MHz) | |

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| Ref. No. | Part No. | Description | | | Remark |
|---|---|---|---|---|---|
| * | A-7062-843-A | MC-81 BOARD, COMPLETE | | | |
| | | ********************** | | | |
| | | (Ref. No 15,000 Series) | | | |
| | 9-911-841-XX | CUSHION | | | |

< CAPACITOR >

| Ref. No. | Part No. | Description | | | Remark |
|---|---|---|---|---|---|
| C001 | 1-125-442-11 | CAP, DOUBLE LAYERS 0.022F | | | |
| C002 | 1-164-232-11 | CERAMIC CHIP | 0.01uF | | 50V |
| C003 | 1-126-163-11 | ELECT | 4.7uF | 20% | 50V |
| C004 | 1-164-232-11 | CERAMIC CHIP | 0.01uF | | 50V |
| C005 | 1-126-163-11 | ELECT | 4.7uF | 20% | 50V |
| C006 | 1-126-163-11 | ELECT | 4.7uF | 20% | 50V |
| C007 | 1-164-232-11 | CERAMIC CHIP | 0.01uF | | 50V |
| C008 | 1-126-163-11 | ELECT | 4.7uF | 20% | 50V |
| C009 | 1-164-232-11 | CERAMIC CHIP | 0.01uF | | 50V |
| C011 | 1-163-105-00 | CERAMIC CHIP | 33PF | 5% | 50V |
| C012 | 1-163-105-00 | CERAMIC CHIP | 33PF | 5% | 50V |
| C013 | 1-126-163-11 | ELECT | 4.7uF | 20% | 50V |
| C014 | 1-126-163-11 | ELECT | 4.7uF | 20% | 50V |
| C015 | 1-163-038-00 | CERAMIC CHIP | 0.1uF | | 25V |
| C016 | 1-163-235-11 | CERAMIC CHIP | 22PF | 5% | 50V |
| C017 | 1-163-235-11 | CERAMIC CHIP | 22PF | 5% | 50V |
| C018 | 1-163-038-00 | CERAMIC CHIP | 0.1uF | | 25V |
| C019 | 1-126-157-11 | ELECT | 10uF | 20% | 16V |
| C020 | 1-126-157-11 | ELECT | 10uF | 20% | 16V |
| C021 | 1-164-232-11 | CERAMIC CHIP | 0.01uF | | 50V |
| C022 | 1-164-004-11 | CERAMIC CHIP | 0.1uF | 10% | 25V |
| C023 | 1-164-232-11 | CERAMIC CHIP | 0.01uF | | 50V |
| C024 | 1-164-232-11 | CERAMIC CHIP | 0.01uF | | 50V |
| C025 | 1-164-232-11 | CERAMIC CHIP | 0.01uF | | 50V |
| C026 | 1-164-232-11 | CERAMIC CHIP | 0.01uF | | 50V |
| C027 | 1-164-232-11 | CERAMIC CHIP | 0.01uF | | 50V |
| C028 | 1-164-232-11 | CERAMIC CHIP | 0.01uF | | 50V |
| C029 | 1-164-232-11 | CERAMIC CHIP | 0.01uF | | 50V |
| C030 | 1-164-232-11 | CERAMIC CHIP | 0.01uF | | 50V |
| C031 | 1-164-232-11 | CERAMIC CHIP | 0.01uF | | 50V |
| C032 | 1-124-589-11 | ELECT | 47uF | 20% | 16V |
| C033 | 1-163-038-00 | CERAMIC CHIP | 0.1uF | | 25V |
| C034 | 1-124-472-11 | ELECT | 470uF | 20% | 10V |
| C035 | 1-163-038-00 | CERAMIC CHIP | 0.1uF | | 25V |
| C036 | 1-126-163-11 | ELECT | 4.7uF | 20% | 50V |
| C037 | 1-126-163-11 | ELECT | 4.7uF | 20% | 50V |
| C038 | 1-163-038-00 | CERAMIC CHIP | 0.1uF | | 25V |
| C039 | 1-163-105-00 | CERAMIC CHIP | 33PF | 5% | 50V |
| C040 | 1-163-105-00 | CERAMIC CHIP | 33PF | 5% | 50V |
| C041 | 1-164-232-11 | CERAMIC CHIP | 0.01uF | | 50V |
| C042 | 1-164-232-11 | CERAMIC CHIP | 0.01uF | | 50V |
| C043 | 1-164-232-11 | CERAMIC CHIP | 0.01uF | | 50V |
| C044 | 1-164-232-11 | CERAMIC CHIP | 0.01uF | | 50V |
| C045 | 1-164-232-11 | CERAMIC CHIP | 0.01uF | | 50V |
| C046 | 1-164-232-11 | CERAMIC CHIP | 0.01uF | | 50V |
| C047 | 1-164-232-11 | CERAMIC CHIP | 0.01uF | | 50V |
| C048 | 1-164-232-11 | CERAMIC CHIP | 0.01uF | | 50V |
| C049 | 1-164-232-11 | CERAMIC CHIP | 0.01uF | | 50V |
| C050 | 1-164-232-11 | CERAMIC CHIP | 0.01uF | | 50V |
| C051 | 1-126-163-11 | ELECT | 4.7uF | 20% | 50V |
| C052 | 1-126-163-11 | ELECT | 4.7uF | 20% | 50V |
| C053 | 1-126-163-11 | ELECT | 4.7uF | 20% | 50V |
| C054 | 1-164-232-11 | CERAMIC CHIP | 0.01uF | | 50V |
| C055 | 1-163-105-00 | CERAMIC CHIP | 33PF | 5% | 50V |
| C056 | 1-163-105-00 | CERAMIC CHIP | 33PF | 5% | 50V |
| C057 | 1-164-232-11 | CERAMIC CHIP | 0.01uF | | 50V |
| C059 | 1-164-232-11 | CERAMIC CHIP | 0.01uF | | 50V |
| C060 | 1-130-497-00 | MYLAR | 0.15uF | 5% | 50V |
| C061 | 1-130-495-00 | MYLAR | 0.1uF | 5% | 50V |
| C062 | 1-164-232-11 | CERAMIC CHIP | 0.01uF | | 50V |
| C063 | 1-164-232-11 | CERAMIC CHIP | 0.01uF | | 50V |
| C064 | 1-130-491-00 | MYLAR | 0.047uF | 5% | 50V |
| C065 | 1-164-232-11 | CERAMIC CHIP | 0.01uF | | 50V |
| C066 | 1-130-485-00 | MYLAR | 0.015uF | 5% | 50V |
| C067 | 1-130-483-00 | MYLAR | 0.01uF | 5% | 50V |
| C068 | 1-164-232-11 | CERAMIC CHIP | 0.01uF | | 50V |
| C069 | 1-164-232-11 | CERAMIC CHIP | 0.01uF | | 50V |
| C070 | 1-126-157-11 | ELECT | 10uF | 20% | 16V |
| C071 | 1-126-157-11 | ELECT | 10uF | 20% | 16V |
| C072 | 1-163-038-00 | CERAMIC CHIP | 0.1uF | | 25V |
| C073 | 1-163-241-11 | CERAMIC CHIP | 39PF | 5% | 50V |
| C074 | 1-163-241-11 | CERAMIC CHIP | 39PF | 5% | 50V |
| C075 | 1-163-245-11 | CERAMIC CHIP | 56PF | 5% | 50V |
| C076 | 1-163-235-11 | CERAMIC CHIP | 22PF | 5% | 50V |
| C077 | 1-164-232-11 | CERAMIC CHIP | 0.01uF | | 50V |
| C078 | 1-130-493-00 | MYLAR | 0.068uF | 5% | 50V |
| C079 | 1-130-491-00 | MYLAR | 0.047uF | 5% | 50V |
| C080 | 1-130-491-00 | MYLAR | 0.047uF | 5% | 50V |
| C081 | 1-124-472-11 | ELECT | 470uF | 20% | 10V |
| C082 | 1-164-232-11 | CERAMIC CHIP | 0.01uF | | 50V |

< CONNECTOR >

| Ref. No. | Part No. | Description | Remark |
|---|---|---|---|
| CN001 | 1-506-478-11 | CONNECTOR 13P, MALE | |
| CN002 | 1-506-478-11 | CONNECTOR 13P, MALE | |
| CN003 | 1-506-486-11 | PIN, CONNECTOR 7P | |
| CN004 | 1-506-477-11 | CONNECTOR 12P, MALE | |
| CN005 | 1-506-473-11 | CONNECTOR 8P, MALE | |
| CN006 | 1-506-478-11 | CONNECTOR 13P, MALE | |
| CN007 | 1-506-478-11 | CONNECTOR 13P, MALE | |
| CN008 | 1-506-471-11 | CONNECTOR 6P, MALE | |
| CN009 | 1-506-485-11 | CONNECTOR 6P, MALE | |

# MC-81

| Ref. No. | Part No. | Description | Remark |
|---|---|---|---|
| CN010 | 1-506-483-21 | CONNECTOR 4P, MALE | |
| CN011 | 1-506-483-21 | CONNECTOR 4P, MALE | |
| CN012 | 1-506-489-11 | CONNECTOR 10P, MALE | |
| CN101 | 1-506-489-11 | CONNECTOR 10P, MALE | |
| CN102 | 1-506-483-21 | CONNECTOR 4P, MALE | |
| | | < TRIMMER > | |
| CV001 | 1-141-245-00 | CAP, TRIMMER 30PF | |
| | | < DIODE > | |
| D001 | 8-719-105-64 | DIODE RD4.3M | |
| D002 | 8-719-981-01 | DIODE ERA81-004 | |
| D003 | 8-719-400-18 | DIODE MA152WK | |
| D004 | 8-719-400-18 | DIODE MA152WK | |
| D005 | 8-719-400-18 | DIODE MA152WK | |
| | | < FILTER > | |
| FL001 | 1-421-928-11 | FILTER, NOISE | |
| FL002 | 1-421-928-11 | FILTER, NOISE | |
| FL003 | 1-421-928-11 | FILTER, NOISE | |
| FL004 | 1-421-928-11 | FILTER, NOISE | |
| FL005 | 1-421-928-11 | FILTER, NOISE | |
| FL006 | 1-421-928-11 | FILTER, NOISE | |
| | | < IC > | |
| IC001 | 8-759-320-29 | IC HD63B05Z0-A28F | |
| IC002 | 8-759-154-29 | IC uPD75108G | |
| IC003 | 8-759-149-66 | IC uPD75108G-F52-1B | |
| IC004 | 8-752-331-00 | IC CXK5864BM-12L | |
| IC005 | 8-759-516-74 | IC MB90061 | |
| IC006 | 8-759-048-71 | IC LH53259-73 | |
| IC007 | 8-752-331-00 | IC CXK5864BM-12L | |
| IC008 | 8-759-916-25 | IC SN74HC32AN | |
| IC009 | 8-759-926-67 | IC SN74HC374ANS | |
| IC010 | 8-759-926-67 | IC SN74HC374ANS | |
| IC011 | 8-759-926-48 | IC SN74HC244ANS | |
| IC012 | 8-759-926-67 | IC SN74HC374ANS | |
| IC013 | 8-759-926-67 | IC SN74HC374ANS | |
| IC014 | 8-759-926-48 | IC SN74HC244ANS | |
| IC015 | 8-759-926-48 | IC SN74HC244ANS | |
| IC016 | 8-759-927-46 | IC SN74HC00ANS | |
| IC017 | 8-759-926-48 | IC SN74HC244ANS | |
| IC018 | 8-759-937-56 | IC S-8054ALB-LM-S | |
| IC019 | 8-759-916-25 | IC SN74HC32AN | |
| IC020 | 8-759-916-25 | IC SN74HC32AN | |
| IC021 | 8-759-926-05 | IC SN74HC125NS | |
| IC022 | 8-759-926-11 | IC SN74HC138ANS | |
| IC023 | 8-759-926-12 | IC SN74HC139ANS | |
| IC024 | 8-759-926-05 | IC SN74HC125NS | |
| IC025 | 8-759-925-74 | IC SN74HC04ANS | |
| IC026 | 8-759-925-76 | IC SN74HC08ANS | |
| IC027 | 8-759-926-05 | IC SN74HC125NS | |
| IC028 | 8-759-145-50 | IC uPD71051GB-3B4 | |
| IC029 | 8-759-926-74 | IC SN74HC393ANS | |
| IC030 | 8-759-009-10 | IC MC14069UBF | |
| IC032 | 8-759-009-51 | IC MC14538BF | |
| IC033 | 8-759-916-25 | IC SN74HC32AN | |
| IC034 | 8-759-206-28 | IC MC74HC123AF | |
| IC035 | 8-759-206-28 | IC MC74HC123AF | |
| IC036 | 8-759-925-90 | IC SN74HC74ANS | |
| IC037 | 8-759-011-65 | IC MC74HC4053F | |
| IC037 | 8-759-230-XX | IC TC74HC4053AF | |
| IC038 | 8-759-926-67 | IC SN74HC374ANS | |
| IC039 | 8-759-937-56 | IC S-8054ALB-LM-S | |
| IC040 | 8-759-206-28 | IC MC74HC123AF | |
| | | < IC SOCKET > | |
| ICS006 | * 1-526-659-00 | SOCKET, IC (DP) 28P | |
| | | < COIL > | |
| L001 | 1-407-169-XX | INDUCTOR 100uH | |
| L002 | 1-407-169-XX | INDUCTOR 100uH | |
| L003 | 1-407-169-XX | INDUCTOR 100uH | |
| L004 | 1-407-169-XX | INDUCTOR 100uH | |
| L005 | 1-408-970-21 | INDUCTOR 10uH | |
| L006 | 1-407-169-XX | INDUCTOR 100uH | |
| L007 | 1-407-169-XX | INDUCTOR 100uH | |
| L008 | 1-408-966-21 | INDUCTOR 4.7uH | |
| | | < IC LINK > | |
| PS001 | ⚠1-532-727-11 | LINK, IC 0.25A | |
| | | < TRANSISTOR > | |
| Q001 | 8-729-216-22 | TRANSISTOR 2SA1162 | |
| Q002 | 8-729-100-66 | TRANSISTOR 2SC1623 | |
| Q003 | 8-729-901-01 | TRANSISTOR DTC144EK | |
| Q004 | 8-729-901-01 | TRANSISTOR DTC144EK | |
| Q005 | 8-729-901-06 | TRANSISTOR DTA144EK | |
| Q006 | 8-729-901-01 | TRANSISTOR DTC144EK | |
| Q007 | 8-729-100-66 | TRANSISTOR 2SC1623 | |
| Q010 | 8-729-901-01 | TRANSISTOR DTC144EK | |
| Q011 | 8-729-901-01 | TRANSISTOR DTC144EK | |
| Q012 | 8-729-100-66 | TRANSISTOR 2SC1623 | |
| | | < RESISTOR > | |
| R001 | 1-216-049-00 | METAL CHIP 1K 5% 1/10W | |
| R002 | 1-216-051-00 | METAL CHIP 1.2K 5% 1/10W | |
| R003 | 1-216-039-00 | METAL CHIP 390 5% 1/10W | |

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

| Ref.No. | Part No. | Description | | | | Remark |
|---|---|---|---|---|---|---|
| R004 | 1-216-057-00 | METAL CHIP | 2.2K | 5% | 1/10W | |
| R005 | 1-216-019-00 | METAL CHIP | 56 | 5% | 1/10W | |
| R006 | 1-216-089-00 | METAL CHIP | 47K | 5% | 1/10W | |
| R007 | 1-216-295-00 | METAL CHIP | 0 | 5% | 1/10W | |
| R008 | 1-216-089-00 | METAL CHIP | 47K | 5% | 1/10W | |
| R010 | 1-216-089-00 | METAL CHIP | 47K | 5% | 1/10W | |
| R011 | 1-216-089-00 | METAL CHIP | 47K | 5% | 1/10W | |
| R012 | 1-216-089-00 | METAL CHIP | 47K | 5% | 1/10W | |
| R013 | 1-216-089-00 | METAL CHIP | 47K | 5% | 1/10W | |
| R014 | 1-216-089-00 | METAL CHIP | 47K | 5% | 1/10W | |
| R015 | 1-216-089-00 | METAL CHIP | 47K | 5% | 1/10W | |
| R016 | 1-216-089-00 | METAL CHIP | 47K | 5% | 1/10W | |
| R017 | 1-216-089-00 | METAL CHIP | 47K | 5% | 1/10W | |
| R018 | 1-216-089-00 | METAL CHIP | 47K | 5% | 1/10W | |
| R019 | 1-216-089-00 | METAL CHIP | 47K | 5% | 1/10W | |
| R020 | 1-216-089-00 | METAL CHIP | 47K | 5% | 1/10W | |
| R021 | 1-216-089-00 | METAL CHIP | 47K | 5% | 1/10W | |
| R022 | 1-216-089-00 | METAL CHIP | 47K | 5% | 1/10W | |
| R023 | 1-216-089-00 | METAL CHIP | 47K | 5% | 1/10W | |
| R024 | 1-216-089-00 | METAL CHIP | 47K | 5% | 1/10W | |
| R025 | 1-216-089-00 | METAL CHIP | 47K | 5% | 1/10W | |
| R026 | 1-216-089-00 | METAL CHIP | 47K | 5% | 1/10W | |
| R027 | 1-216-025-00 | METAL CHIP | 100 | 5% | 1/10W | |
| R028 | 1-216-025-00 | METAL CHIP | 100 | 5% | 1/10W | |
| R029 | 1-216-025-00 | METAL CHIP | 100 | 5% | 1/10W | |
| R030 | 1-216-025-00 | METAL CHIP | 100 | 5% | 1/10W | |
| R031 | 1-216-025-00 | METAL CHIP | 100 | 5% | 1/10W | |
| R032 | 1-216-025-00 | METAL CHIP | 100 | 5% | 1/10W | |
| R033 | 1-216-025-00 | METAL CHIP | 100 | 5% | 1/10W | |
| R034 | 1-216-025-00 | METAL CHIP | 100 | 5% | 1/10W | |
| R035 | 1-216-089-00 | METAL CHIP | 47K | 5% | 1/10W | |
| R036 | 1-216-089-00 | METAL CHIP | 47K | 5% | 1/10W | |
| R037 | 1-216-089-00 | METAL CHIP | 47K | 5% | 1/10W | |
| R038 | 1-216-089-00 | METAL CHIP | 47K | 5% | 1/10W | |
| R039 | 1-216-089-00 | METAL CHIP | 47K | 5% | 1/10W | |
| R040 | 1-216-073-00 | METAL CHIP | 10K | 5% | 1/10W | |
| R041 | 1-216-073-00 | METAL CHIP | 10K | 5% | 1/10W | |
| R042 | 1-216-073-00 | METAL CHIP | 10K | 5% | 1/10W | |
| R043 | 1-216-073-00 | METAL CHIP | 10K | 5% | 1/10W | |
| R044 | 1-216-089-00 | METAL CHIP | 47K | 5% | 1/10W | |
| R045 | 1-216-089-00 | METAL CHIP | 47K | 5% | 1/10W | |
| R046 | 1-216-097-00 | METAL CHIP | 100K | 5% | 1/10W | |
| R047 | 1-216-049-00 | METAL CHIP | 1K | 5% | 1/10W | |
| R048 | 1-216-077-00 | METAL CHIP | 15K | 5% | 1/10W | |
| R049 | 1-216-089-00 | METAL CHIP | 47K | 5% | 1/10W | |
| R050 | 1-216-077-00 | METAL CHIP | 15K | 5% | 1/10W | |
| R051 | 1-216-077-00 | METAL CHIP | 15K | 5% | 1/10W | |
| R052 | 1-216-077-00 | METAL CHIP | 15K | 5% | 1/10W | |
| R053 | 1-216-077-00 | METAL CHIP | 15K | 5% | 1/10W | |
| R054 | 1-216-065-00 | METAL CHIP | 4.7K | 5% | 1/10W | |
| R055 | 1-216-089-00 | METAL CHIP | 47K | 5% | 1/10W | |
| R056 | 1-216-089-00 | METAL CHIP | 47K | 5% | 1/10W | |
| R057 | 1-216-089-00 | METAL CHIP | 47K | 5% | 1/10W | |
| R058 | 1-216-089-00 | METAL CHIP | 47K | 5% | 1/10W | |
| R059 | 1-216-025-00 | METAL CHIP | 100 | 5% | 1/10W | |
| R060 | 1-216-089-00 | METAL CHIP | 47K | 5% | 1/10W | |
| R061 | 1-216-025-00 | METAL CHIP | 100 | 5% | 1/10W | |
| R062 | 1-216-025-00 | METAL CHIP | 100 | 5% | 1/10W | |
| R063 | 1-216-089-00 | METAL CHIP | 47K | 5% | 1/10W | |
| R064 | 1-216-089-00 | METAL CHIP | 47K | 5% | 1/10W | |
| R065 | 1-216-089-00 | METAL CHIP | 47K | 5% | 1/10W | |
| R066 | 1-216-089-00 | METAL CHIP | 47K | 5% | 1/10W | |
| R067 | 1-216-089-00 | METAL CHIP | 47K | 5% | 1/10W | |
| R068 | 1-216-089-00 | METAL CHIP | 47K | 5% | 1/10W | |
| R069 | 1-216-089-00 | METAL CHIP | 47K | 5% | 1/10W | |
| R070 | 1-216-089-00 | METAL CHIP | 47K | 5% | 1/10W | |
| R071 | 1-216-025-00 | METAL CHIP | 100 | 5% | 1/10W | |
| R072 | 1-216-089-00 | METAL CHIP | 47K | 5% | 1/10W | |
| R073 | 1-216-025-00 | METAL CHIP | 100 | 5% | 1/10W | |
| R074 | 1-216-025-00 | METAL CHIP | 100 | 5% | 1/10W | |
| R075 | 1-216-025-00 | METAL CHIP | 100 | 5% | 1/10W | |
| R076 | 1-216-089-00 | METAL CHIP | 47K | 5% | 1/10W | |
| R077 | 1-216-089-00 | METAL CHIP | 47K | 5% | 1/10W | |
| R078 | 1-216-089-00 | METAL CHIP | 47K | 5% | 1/10W | |
| R079 | 1-216-089-00 | METAL CHIP | 47K | 5% | 1/10W | |
| R080 | 1-216-089-00 | METAL CHIP | 47K | 5% | 1/10W | |
| R081 | 1-216-025-00 | METAL CHIP | 100 | 5% | 1/10W | |
| R082 | 1-216-025-00 | METAL CHIP | 100 | 5% | 1/10W | |
| R083 | 1-216-089-00 | METAL CHIP | 47K | 5% | 1/10W | |
| R084 | 1-216-025-00 | METAL CHIP | 100 | 5% | 1/10W | |
| R085 | 1-216-089-00 | METAL CHIP | 47K | 5% | 1/10W | |
| R086 | 1-216-025-00 | METAL CHIP | 100 | 5% | 1/10W | |
| R087 | 1-216-073-00 | METAL CHIP | 10K | 5% | 1/10W | |
| R088 | 1-216-097-00 | METAL CHIP | 100K | 5% | 1/10W | |
| R089 | 1-216-097-00 | METAL CHIP | 100K | 5% | 1/10W | |
| R090 | 1-216-025-00 | METAL CHIP | 100 | 5% | 1/10W | |
| R091 | 1-216-089-00 | METAL CHIP | 47K | 5% | 1/10W | |
| R092 | 1-216-089-00 | METAL CHIP | 47K | 5% | 1/10W | |
| R093 | 1-216-025-00 | METAL CHIP | 100 | 5% | 1/10W | |
| R094 | 1-216-089-00 | METAL CHIP | 47K | 5% | 1/10W | |
| R095 | 1-216-089-00 | METAL CHIP | 47K | 5% | 1/10W | |
| R096 | 1-216-089-00 | METAL CHIP | 47K | 5% | 1/10W | |
| R097 | 1-216-089-00 | METAL CHIP | 47K | 5% | 1/10W | |
| R098 | 1-216-121-00 | METAL CHIP | 1M | 5% | 1/10W | |
| R099 | 1-216-025-00 | METAL CHIP | 100 | 5% | 1/10W | |
| R101 | 1-216-025-00 | METAL CHIP | 100 | 5% | 1/10W | |
| R102 | 1-216-025-00 | METAL CHIP | 100 | 5% | 1/10W | |

| Ref. No. | Part No. | Description | | | | Remark |
|---|---|---|---|---|---|---|
| R119 | 1-216-067-00 | METAL CHIP | 5.6K | 5% | 1/10W | |
| R120 | 1-216-089-00 | METAL CHIP | 47K | 5% | 1/10W | |
| R121 | 1-216-089-00 | METAL CHIP | 47K | 5% | 1/10W | |
| R122 | 1-216-089-00 | METAL CHIP | 47K | 5% | 1/10W | |
| R123 | 1-216-089-00 | METAL CHIP | 47K | 5% | 1/10W | |
| R124 | 1-216-107-00 | METAL CHIP | 270K | 5% | 1/10W | |
| R125 | 1-216-091-00 | METAL CHIP | 56K | 5% | 1/10W | |
| R126 | 1-216-089-00 | METAL CHIP | 47K | 5% | 1/10W | |
| R127 | 1-216-089-00 | METAL CHIP | 47K | 5% | 1/10W | |
| R129 | 1-216-089-00 | METAL CHIP | 47K | 5% | 1/10W | |
| R131 | 1-216-017-00 | METAL CHIP | 47 | 5% | 1/10W | |
| R132 | 1-216-017-00 | METAL CHIP | 47 | 5% | 1/10W | |
| R133 | 1-216-017-00 | METAL CHIP | 47 | 5% | 1/10W | |
| R134 | 1-216-017-00 | METAL CHIP | 47 | 5% | 1/10W | |
| R135 | 1-216-017-00 | METAL CHIP | 47 | 5% | 1/10W | |
| R137 | 1-216-089-00 | METAL CHIP | 47K | 5% | 1/10W | |
| R139 | 1-216-296-00 | METAL CHIP | 0 | 5% | 1/8W | |
| R140 | 1-216-025-00 | METAL CHIP | 100 | 5% | 1/10W | |
| R141 | 1-216-296-00 | METAL CHIP | 0 | 5% | 1/8W | |
| R142 | 1-216-025-00 | METAL CHIP | 100 | 5% | 1/10W | |
| R143 | 1-216-025-00 | METAL CHIP | 100 | 5% | 1/10W | |
| R144 | 1-216-025-00 | METAL CHIP | 100 | 5% | 1/10W | |
| R145 | 1-216-049-00 | METAL CHIP | 1K | 5% | 1/10W | |
| R146 | 1-216-089-00 | METAL CHIP | 47K | 5% | 1/10W | |
| R147 | 1-216-089-00 | METAL CHIP | 47K | 5% | 1/10W | |
| R148 | 1-216-089-00 | METAL CHIP | 47K | 5% | 1/10W | |
| R149 | 1-216-049-00 | METAL CHIP | 1K | 5% | 1/10W | |
| R150 | 1-216-049-00 | METAL CHIP | 1K | 5% | 1/10W | |
| R151 | 1-216-049-00 | METAL CHIP | 1K | 5% | 1/10W | |
| R152 | 1-216-096-00 | METAL GLAZE | 91K | 5% | 1/10W | |
| R153 | 1-216-089-00 | METAL CHIP | 47K | 5% | 1/10W | |
| R155 | 1-216-104-00 | METAL CHIP | 200K | 5% | 1/10W | |
| R156 | 1-216-065-00 | METAL CHIP | 4.7K | 5% | 1/10W | |
| R157 | 1-216-089-00 | METAL CHIP | 47K | 5% | 1/10W | |
| R158 | 1-216-037-00 | METAL CHIP | 330 | 5% | 1/10W | |
| R159 | 1-216-025-00 | METAL CHIP | 100 | 5% | 1/10W | |
| R160 | 1-216-105-00 | METAL CHIP | 220K | 5% | 1/10W | |
| R161 | 1-216-107-00 | METAL CHIP | 270K | 5% | 1/10W | |
| R162 | 1-216-073-00 | METAL CHIP | 10K | 5% | 1/10W | |
| R163 | 1-216-089-00 | METAL CHIP | 47K | 5% | 1/10W | |
| R165 | 1-216-089-00 | METAL CHIP | 47K | 5% | 1/10W | |
| R171 | 1-216-089-00 | METAL CHIP | 47K | 5% | 1/10W | |

< VARIABLE RESISTOR >

| | | | |
|---|---|---|---|
| RV001 | 1-230-526-11 | RES, ADJ, METAL 47K | |
| RV002 | 1-230-522-11 | RES, ADJ, METAL 4.7K | |
| RV003 | 1-230-526-11 | RES, ADJ, METAL 47K | |
| RV004 | 1-230-527-11 | RES, ADJ, METAL 100K | |

< VIBRATOR >

| Ref. No. | Part No. | Description | Remark |
|---|---|---|---|
| X001 | 1-567-132-00 | OSCILLATOR, CERAMIC (8.00MHz) | |
| X002 | 1-567-160-21 | OSCILLATOR, CERAMIC (4.19MHz) | |
| X003 | 1-567-160-21 | OSCILLATOR, CERAMIC (4.19MHz) | |
| X004 | 1-527-827-00 | OSCILLATOR, CRYSTAL | |
| X005 | 1-567-344-21 | VIBRATOR, CRYSTAL (VCO) | |

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* A-7062-168-A MD-23 (P) BOARD, COMPLETE
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(Ref.No 1,000 Series)

1-625-649-11 FP-84 FLEXIBLE BOARD
1-625-650-11 FP-122 FLEXIBLE BOARD

< CAPACITOR >

| | | | | | | Remark |
|---|---|---|---|---|---|---|
| C801 | 1-124-465-00 | ELECT | 0.47uF | 20% | 50V | |
| C802 | 1-124-464-11 | ELECT | 0.22uF | 20% | 50V | |
| C803 | 1-163-038-00 | CERAMIC CHIP | 0.1uF | | 25V | |
| C804 | 1-126-160-11 | ELECT | 1uF | 20% | 50V | |
| C805 | 1-163-038-00 | CERAMIC CHIP | 0.1uF | | 25V | |
| C806 | 1-126-151-11 | ELECT, NONPOLAR | 4.7uF | 20% | 16V | |
| C808 | 1-126-162-11 | ELECT | 3.3uF | 20% | 50V | |
| C809 | 1-124-584-00 | ELECT | 100uF | 20% | 10V | |
| C810 | 1-126-096-11 | ELECT | 10uF | 20% | 35V | |
| C811 | 1-126-096-11 | ELECT | 10uF | 20% | 35V | |
| C812 | 1-126-096-11 | ELECT | 10uF | 20% | 35V | |
| C813 | 1-126-160-11 | ELECT | 1uF | 20% | 50V | |
| C814 | 1-126-160-11 | ELECT | 1uF | 20% | 50V | |
| C815 | 1-126-160-11 | ELECT | 1uF | 20% | 50V | |
| C816 | 1-124-229-00 | ELECT | 33uF | 20% | 10V | |
| C817 | 1-124-229-00 | ELECT | 33uF | 20% | 10V | |
| C818 | 1-124-229-00 | ELECT | 33uF | 20% | 10V | |
| C819 | 1-163-038-00 | CERAMIC CHIP | 0.1uF | | 25V | |
| C820 | 1-163-038-00 | CERAMIC CHIP | 0.1uF | | 25V | |
| C821 | 1-164-232-11 | CERAMIC CHIP | 0.01uF | | 50V | |
| C822 | 1-164-232-11 | CERAMIC CHIP | 0.01uF | | 50V | |
| C823 | 1-163-038-00 | CERAMIC CHIP | 0.1uF | | 25V | |
| C824 | 1-163-038-00 | CERAMIC CHIP | 0.1uF | | 25V | |
| C825 | 1-126-162-11 | ELECT | 3.3uF | 20% | 50V | |
| C833 | 1-163-038-00 | CERAMIC CHIP | 0.1uF | | 25V | |
| C834 | 1-163-017-00 | CERAMIC CHIP | 0.0047uF | 5% | 50V | |
| C835 | 1-126-501-11 | ELECT | 0.15uF | 20% | 50V | |
| C836 | 1-164-157-11 | CERAMIC CHIP | 0.068uF | 10% | 25V | |
| C837 | 1-124-464-11 | ELECT | 0.22uF | 20% | 50V | |
| C838 | 1-124-589-11 | ELECT | 47uF | 20% | 16V | |
| C839 | 1-126-529-11 | ELECT | 0.47uF | 20% | 50V | |
| C840 | 1-164-232-11 | CERAMIC CHIP | 0.01uF | | 50V | |
| C841 | 1-124-589-11 | ELECT | 47uF | 20% | 16V | |

| Ref. No. | Part No. | Description | | | Remark |
|---|---|---|---|---|---|
| C901 | 1-124-234-00 | ELECT | 22uF | 20% | 16V |
| C902 | 1-124-234-00 | ELECT | 22uF | 20% | 16V |
| C903 | 1-124-234-00 | ELECT | 22uF | 20% | 16V |
| C904 | 1-124-234-00 | ELECT | 22uF | 20% | 16V |
| C905 | 1-124-257-00 | ELECT | 2.2uF | 20% | 50V |
| C906 | 1-164-232-11 | CERAMIC CHIP | 0.01uF | | 50V |
| C907 | 1-163-038-00 | CERAMIC CHIP | 0.1uF | | 25V |
| C908 | 1-126-096-11 | ELECT | 10uF | 20% | 35V |
| C909 | 1-163-077-00 | CERAMIC CHIP | 0.1uF | 10% | 25V |
| C910 | 1-130-491-00 | MYLAR | 0.047uF | 5% | 50V |
| C911 | 1-130-491-00 | MYLAR | 0.047uF | 5% | 50V |
| C912 | 1-130-483-00 | MYLAR | 0.01uF | 5% | 50V |
| C913 | 1-164-232-11 | CERAMIC CHIP | 0.01uF | | 50V |
| C914 | 1-124-589-11 | ELECT | 47uF | 20% | 16V |
| C915 | 1-164-232-11 | CERAMIC CHIP | 0.01uF | | 50V |
| C916 | 1-126-530-11 | ELECT | 22uF | 20% | 10V |
| C917 | 1-126-530-11 | ELECT | 22uF | 20% | 10V |
| C918 | 1-164-232-11 | CERAMIC CHIP | 0.01uF | | 50V |
| C919 | 1-164-232-11 | CERAMIC CHIP | 0.01uF | | 50V |
| C950 | 1-164-157-11 | CERAMIC CHIP | 0.068uF | 10% | 25V |
| C990 | 1-163-145-00 | CERAMIC CHIP | 0.0015uF | 5% | 50V |
| C991 | 1-163-035-00 | CERAMIC CHIP | 0.047uF | | 50V |
| C992 | 1-163-035-00 | CERAMIC CHIP | 0.047uF | | 50V |
| C993 | 1-164-232-11 | CERAMIC CHIP | 0.01uF | | 50V |

< CONNECTOR >

| | | | |
|---|---|---|---|
| CN801 | | 1-506-483-21 | CONNECTOR 4P, MALE |
| CN803 | | 1-506-481-11 | CONNECTOR 2P, MALE |
| CN804 | | 1-506-484-11 | CONNECTOR 5P, MALE |
| CN805 | | 1-506-469-11 | CONNECTOR 4P, MALE |
| CN806 | | 1-506-469-11 | CONNECTOR 4P, MALE |
| CN807 | | 1-566-527-11 | CONNECTOR, FPC (ZIF) 11P |
| CN808 | | 1-566-531-11 | CONNECTOR, FPC (ZIF) 15P |
| CN809 | | 1-566-945-11 | CONNECTOR, BOARD TO BOARD 18P |
| CN810 | | 1-566-946-11 | CONNECTOR, BOARD TO BOARD 22P |
| CN811 | * | 1-566-367-11 | CONNECTOR, HINGE (RECEPTACLE) |
| CN812 | | 1-566-942-11 | CONNECTOR, HINGE (RECEPTACLE) 30P |
| CN814 | * | 1-566-367-11 | CONNECTOR, HINGE (RECEPTACLE) |

< DIODE >

| | | | |
|---|---|---|---|
| D803 | 8-719-200-27 | DIODE | E10DS2 |
| D810 | 8-719-400-18 | DIODE | MA152WK |
| D811 | 8-719-200-27 | DIODE | E10DS2 |
| D901 | 8-719-400-18 | DIODE | MA152WK |
| D902 | 8-719-400-18 | DIODE | MA152WK |
| D903 | 8-719-400-18 | DIODE | MA152WK |
| D904 | 8-719-800-76 | DIODE | 1SS226 |
| D905 | 8-719-400-18 | DIODE | MA152WK |

Ref. No. Part No. Description Remark

< IC >

| | | | |
|---|---|---|---|
| IC801 | 8-752-037-08 | IC | CXA1109M |
| IC802 | 8-759-802-79 | IC | LB1616M |
| IC804 | 8-759-981-82 | IC | RC3414M |
| IC805 | 8-759-100-93 | IC | uPC393G2 |
| IC806 | 8-759-207-00 | IC | TA7733F |
| IC807 | 8-759-107-68 | IC | CX20115A |
| IC808 | 8-759-700-62 | IC | NJM4562D |
| IC809 | 8-759-100-94 | IC | uPC358G2 |
| IC901 | 8-759-207-50 | IC | TA7745F |
| IC902 | 8-759-150-05 | IC | uPC324G2 |
| IC903 | 8-759-925-66 | IC | BA6303F |
| IC904 | 8-759-008-67 | IC | MC14066BF |

< COIL >

| | | | |
|---|---|---|---|
| L990 | 1-408-793-21 | INDUCTOR, CHIP | 220uH |
| L991 | 1-408-777-00 | INDUCTOR CHIP | 10uH |

< IC LINK >

| | | |
|---|---|---|
| PS801 | ⚠1-532-685-00 | LINK, IC |

< TRANSISTOR >

| | | | |
|---|---|---|---|
| Q806 | 8-729-111-14 | TRANSISTOR | 2SA1385 |
| Q807 | 8-729-901-06 | TRANSISTOR | DTA144EK |
| Q809 | 8-729-111-95 | TRANSISTOR | 2SC3518 |
| Q810 | 8-729-805-25 | TRANSISTOR | 2SB1121 |
| Q811 | 8-729-805-25 | TRANSISTOR | 2SB1121 |
| Q812 | 8-729-111-14 | TRANSISTOR | 2SA1385 |
| Q813 | 8-729-100-66 | TRANSISTOR | 2SC1623 |
| Q820 | 8-729-111-95 | TRANSISTOR | 2SC3518 |
| Q821 | 8-729-100-66 | TRANSISTOR | 2SC1623 |
| Q880 | 8-729-100-66 | TRANSISTOR | 2SC1623 |
| Q901 | 8-729-920-82 | TRANSISTOR | 2SB1188 |
| Q902 | 8-729-920-82 | TRANSISTOR | 2SB1188 |
| Q903 | 8-729-920-82 | TRANSISTOR | 2SB1188 |
| Q904 | 8-729-901-06 | TRANSISTOR | DTA144EK |
| Q905 | 8-729-901-06 | TRANSISTOR | DTA144EK |
| Q906 | 8-729-901-01 | TRANSISTOR | DTC144EK |
| Q907 | 8-729-901-01 | TRANSISTOR | DTC144EK |
| Q908 | 8-729-901-01 | TRANSISTOR | DTC144EK |
| Q909 | 8-729-901-06 | TRANSISTOR | DTA144EK |
| Q950 | 8-729-903-97 | TRANSISTOR | FMS1FE |
| Q990 | 8-729-100-66 | TRANSISTOR | 2SC1623 |

< RESISTOR >

| | | | | | |
|---|---|---|---|---|---|
| R801 | 1-216-105-00 | METAL CHIP | 220K | 5% | 1/10W |
| R802 | 1-216-105-00 | METAL CHIP | 220K | 5% | 1/10W |

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

## MD-23 (P)

| Ref. No. | Part No. | Description | | | | Remark |
|---|---|---|---|---|---|---|
| R803 | 1-216-097-00 | METAL CHIP | 100K | 5% | 1/10W | |
| R804 | 1-216-097-00 | METAL CHIP | 100K | 5% | 1/10W | |
| R805 | 1-216-085-00 | METAL CHIP | 33K | 5% | 1/10W | |
| R806 | 1-216-065-00 | METAL CHIP | 4.7K | 5% | 1/10W | |
| R807 | 1-216-049-00 | METAL CHIP | 1K | 5% | 1/10W | |
| R810 | 1-216-051-00 | METAL CHIP | 1.2K | 5% | 1/10W | |
| R811 | 1-216-051-00 | METAL CHIP | 1.2K | 5% | 1/10W | |
| R818 | 1-216-059-00 | METAL CHIP | 2.7K | 5% | 1/10W | |
| R819 | 1-216-113-00 | METAL CHIP | 470K | 5% | 1/10W | |
| R820 | 1-216-025-00 | METAL CHIP | 100 | 5% | 1/10W | |
| R823 | 1-216-025-00 | METAL CHIP | 100 | 5% | 1/10W | |
| R824 | 1-216-081-00 | METAL CHIP | 22K | 5% | 1/10W | |
| R826 | 1-216-073-00 | METAL CHIP | 10K | 5% | 1/10W | |
| R830 | 1-216-101-00 | METAL CHIP | 150K | 5% | 1/10W | |
| R831 | 1-216-049-00 | METAL CHIP | 1K | 5% | 1/10W | |
| R832 | 1-216-304-11 | METAL CHIP | 3.3 | 5% | 1/10W | |
| R833 | 1-216-304-11 | METAL CHIP | 3.3 | 5% | 1/10W | |
| R834 | 1-216-304-11 | METAL CHIP | 3.3 | 5% | 1/10W | |
| R835 | 1-216-049-00 | METAL CHIP | 1K | 5% | 1/10W | |
| R840 | 1-216-107-00 | METAL CHIP | 270K | 5% | 1/10W | |
| R841 | 1-216-073-00 | METAL CHIP | 10K | 5% | 1/10W | |
| R842 | 1-216-073-00 | METAL CHIP | 10K | 5% | 1/10W | |
| R843 | 1-216-073-00 | METAL CHIP | 10K | 5% | 1/10W | |
| R844 | 1-216-107-00 | METAL CHIP | 270K | 5% | 1/10W | |
| R845 | 1-216-073-00 | METAL CHIP | 10K | 5% | 1/10W | |
| R846 | 1-216-107-00 | METAL CHIP | 270K | 5% | 1/10W | |
| R847 | 1-216-073-00 | METAL CHIP | 10K | 5% | 1/10W | |
| R848 | 1-216-107-00 | METAL CHIP | 270K | 5% | 1/10W | |
| R849 | 1-216-073-00 | METAL CHIP | 10K | 5% | 1/10W | |
| R852 | 1-216-081-00 | METAL CHIP | 22K | 5% | 1/10W | |
| R860 | 1-216-065-00 | METAL CHIP | 4.7K | 5% | 1/10W | |
| R861 | 1-216-055-00 | METAL CHIP | 1.8K | 5% | 1/10W | |
| R864 | 1-216-033-00 | METAL CHIP | 220 | 5% | 1/10W | |
| R870 | 1-216-113-00 | METAL CHIP | 470K | 5% | 1/10W | |
| R885 | 1-216-073-00 | METAL CHIP | 10K | 5% | 1/10W | |
| R886 | 1-216-073-00 | METAL CHIP | 10K | 5% | 1/10W | |
| R887 | 1-216-049-00 | METAL CHIP | 1K | 5% | 1/10W | |
| R888 | 1-216-049-00 | METAL CHIP | 1K | 5% | 1/10W | |
| R890 | 1-216-681-11 | METAL CHIP | 18K | 0.5% | 1/10W | |
| R891 | 1-216-681-11 | METAL CHIP | 18K | 0.5% | 1/10W | |
| R892 | 1-216-077-00 | METAL CHIP | 15K | 5% | 1/10W | |
| R893 | 1-216-077-00 | METAL CHIP | 15K | 5% | 1/10W | |
| R894 | 1-216-113-00 | METAL CHIP | 470K | 5% | 1/10W | |
| R895 | 1-216-113-00 | METAL CHIP | 470K | 5% | 1/10W | |
| R896 | 1-216-025-00 | METAL CHIP | 100 | 5% | 1/10W | |
| R897 | 1-216-049-00 | METAL CHIP | 1K | 5% | 1/10W | |
| R898 | 1-216-025-00 | METAL CHIP | 100 | 5% | 1/10W | |
| R899 | 1-216-073-00 | METAL CHIP | 10K | 5% | 1/10W | |

| Ref. No. | Part No. | Description | | | | Remark |
|---|---|---|---|---|---|---|
| R900 | 1-216-097-00 | METAL CHIP | 100K | 5% | 1/10W | |
| R901 | 1-216-035-00 | METAL CHIP | 270 | 5% | 1/10W | |
| R902 | 1-216-035-00 | METAL CHIP | 270 | 5% | 1/10W | |
| R903 | 1-216-035-00 | METAL CHIP | 270 | 5% | 1/10W | |
| R904 | 1-216-049-00 | METAL CHIP | 1K | 5% | 1/10W | |
| R905 | 1-216-057-00 | METAL CHIP | 2.2K | 5% | 1/10W | |
| R906 | 1-216-057-00 | METAL CHIP | 2.2K | 5% | 1/10W | |
| R907 | 1-216-069-00 | METAL CHIP | 6.8K | 5% | 1/10W | |
| R908 | 1-216-027-00 | METAL CHIP | 120 | 5% | 1/10W | |
| R909 | 1-216-027-00 | METAL CHIP | 120 | 5% | 1/10W | |
| R910 | 1-216-073-00 | METAL CHIP | 10K | 5% | 1/10W | |
| R911 | 1-216-113-00 | METAL CHIP | 470K | 5% | 1/10W | |
| R912 | 1-216-069-00 | METAL CHIP | 6.8K | 5% | 1/10W | |
| R913 | 1-216-059-00 | METAL CHIP | 2.7K | 5% | 1/10W | |
| R916 | 1-216-073-00 | METAL CHIP | 10K | 5% | 1/10W | |
| R917 | 1-216-073-00 | METAL CHIP | 10K | 5% | 1/10W | |
| R918 | 1-216-073-00 | METAL CHIP | 10K | 5% | 1/10W | |
| R919 | 1-216-073-00 | METAL CHIP | 10K | 5% | 1/10W | |
| R920 | 1-216-077-00 | METAL CHIP | 15K | 5% | 1/10W | |
| R921 | 1-216-083-00 | METAL CHIP | 27K | 5% | 1/10W | |
| R922 | 1-216-085-00 | METAL CHIP | 33K | 5% | 1/10W | |
| R923 | 1-216-748-11 | METAL CHIP | 39K | 1% | 1/10W | |
| R924 | 1-216-089-00 | METAL CHIP | 47K | 5% | 1/10W | |
| R925 | 1-216-089-00 | METAL CHIP | 47K | 5% | 1/10W | |
| R926 | 1-216-111-00 | METAL CHIP | 390K | 5% | 1/10W | |
| R927 | 1-216-110-00 | METAL GLAZE | 360K | 5% | 1/10W | |
| R928 | 1-216-073-00 | METAL CHIP | 10K | 5% | 1/10W | |
| R929 | 1-216-053-00 | METAL CHIP | 1.5K | 5% | 1/10W | |
| R951 | 1-216-069-00 | METAL CHIP | 6.8K | 5% | 1/10W | |
| R952 | 1-216-063-00 | METAL CHIP | 3.9K | 5% | 1/10W | |
| R953 | 1-214-972-00 | METAL | 0.22 | 1% | 1/4W | |
| R955 | 1-216-079-00 | METAL CHIP | 18K | 5% | 1/10W | |
| R990 | 1-216-045-00 | METAL CHIP | 680 | 5% | 1/10W | |
| R991 | 1-216-073-00 | METAL CHIP | 10K | 5% | 1/10W | |
| R992 | 1-216-073-00 | METAL CHIP | 10K | 5% | 1/10W | |
| R993 | 1-216-049-00 | METAL CHIP | 1K | 5% | 1/10W | |
| R996 | 1-216-049-00 | METAL CHIP | 1K | 5% | 1/10W | |
| R997 | 1-216-049-00 | METAL CHIP | 1K | 5% | 1/10W | |
| R998 | 1-216-049-00 | METAL CHIP | 1K | 5% | 1/10W | |
| R999 | 1-216-295-00 | METAL CHIP | 0 | 5% | 1/10W | |

### < VARIABLE RESISTOR >

| | | |
|---|---|---|
| RV801 | 1-230-520-11 | RES, ADJ, METAL 1K |
| RV802 | 1-230-523-11 | RES, ADJ, METAL 10K |
| RV803 | 1-230-527-11 | RES, ADJ, METAL 100K |
| RV901 | 1-230-529-11 | RES, ADJ, METAL 470K |

### < THERMISTOR >

| | | |
|---|---|---|
| THP801 | 1-202-854-00 | THERMISTOR (POSITIVE) |

< CONNECTOR >

| Ref. No. | Part No. | Description | | | | Remark |
|---|---|---|---|---|---|---|
| W801 | 1-562-880-11 | CONNECTOR, CARD EDGE 15P | | | | |
| W901 | 1-562-880-11 | CONNECTOR, CARD EDGE 15P | | | | |

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* A-7062-225-A MJ-26 BOARD, COMPLETE

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(Ref.No 12,000 Series)

| Ref. No. | Part No. | Description | | | | Remark |
|---|---|---|---|---|---|---|
| | 3-684-465-01 | NUT, HEXAGON | | | | |
| | * 3-747-022-01 | HOLDER, MIC | | | | |

< CAPACITOR >

| Ref. No. | Part No. | Description | | | | Remark |
|---|---|---|---|---|---|---|
| C301 | 1-164-182-11 | CERAMIC CHIP | 0.0033uF | 10% | 50V | |
| C302 | 1-164-182-11 | CERAMIC CHIP | 0.0033uF | 10% | 50V | |
| C303 | 1-163-038-00 | CERAMIC CHIP | 0.1uF | | 25V | |
| C304 | 1-163-038-00 | CERAMIC CHIP | 0.1uF | | 25V | |
| C305 | 1-124-778-00 | ELECT CHIP | 22uF | 20% | 6.3V | |
| C306 | 1-126-193-11 | ELECT | 1uF | 20% | 50V | |
| C307 | 1-163-038-00 | CERAMIC CHIP | 0.1uF | | 25V | |
| C308 | 1-164-182-11 | CERAMIC CHIP | 0.0033uF | 10% | 50V | |

< DIODE >

| Ref. No. | Part No. | Description | | | | Remark |
|---|---|---|---|---|---|---|
| D301 | 8-719-108-12 | DIODE | RD9.1E-W | | | |

< IC >

| Ref. No. | Part No. | Description | | | | Remark |
|---|---|---|---|---|---|---|
| IC301 | 8-759-700-62 | IC | NJM4562D | | | |

< JACK >

| Ref. No. | Part No. | Description | | | | Remark |
|---|---|---|---|---|---|---|
| J301 | 1-507-932-11 | JACK, LARGE TYPE (MIC) | | | | |

< TRANSISTOR >

| Ref. No. | Part No. | Description | | | | Remark |
|---|---|---|---|---|---|---|
| Q301 | 8-729-216-22 | TRANSISTOR | 2SA1162 | | | |
| Q302 | 8-729-202-38 | TRANSISTOR | 2SC3326N | | | |
| Q303 | 8-729-100-66 | TRANSISTOR | 2SC1623 | | | |

< RESISTOR >

| Ref. No. | Part No. | Description | | | | Remark |
|---|---|---|---|---|---|---|
| R301 | 1-216-067-00 | METAL CHIP | 5.6K | 5% | 1/10W | |
| R302 | 1-216-081-00 | METAL CHIP | 22K | 5% | 1/10W | |
| R303 | 1-216-028-00 | METAL CHIP | 130 | 5% | 1/10W | |
| R304 | 1-216-065-00 | METAL CHIP | 4.7K | 5% | 1/10W | |
| R305 | 1-216-075-00 | METAL CHIP | 12K | 5% | 1/10W | |
| R306 | 1-216-067-00 | METAL CHIP | 5.6K | 5% | 1/10W | |
| R307 | 1-216-109-00 | METAL CHIP | 330K | 5% | 1/10W | |
| R308 | 1-216-075-00 | METAL CHIP | 12K | 5% | 1/10W | |
| R310 | 1-216-065-00 | METAL CHIP | 4.7K | 5% | 1/10W | |
| R311 | 1-216-049-00 | METAL CHIP | 1K | 5% | 1/10W | |
| R313 | 1-216-075-00 | METAL CHIP | 12K | 5% | 1/10W | |
| R315 | 1-216-069-00 | METAL CHIP | 6.8K | 5% | 1/10W | |

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* A-7062-847-A MM-25 BOARD, COMPLETE

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(Ref.No 16,000 Series)

< CAPACITOR >

| Ref. No. | Part No. | Description | | | | Remark |
|---|---|---|---|---|---|---|
| C607 | 1-163-087-00 | CERAMIC CHIP | 4PF | | 50V | |
| C620 | 1-164-232-11 | CERAMIC CHIP | 0.01uF | | 50V | |
| C621 | 1-164-232-11 | CERAMIC CHIP | 0.01uF | | 50V | |
| C627 | 1-124-779-00 | ELECT CHIP | 10uF | 20% | 16v | |
| C630 | 1-164-232-11 | CERAMIC CHIP | 0.01uF | | 50V | |
| C634 | 1-124-778-00 | ELECT CHIP | 22uF | 20% | 6.3V | |
| C635 | 1-164-232-11 | CERAMIC CHIP | 0.01uF | | 50V | |
| C636 | 1-164-232-11 | CERAMIC CHIP | 0.01uF | | 50V | |
| C637 | 1-164-232-11 | CERAMIC CHIP | 0.01uF | | 50V | |
| C639 | 1-124-778-00 | ELECT CHIP | 22uF | 20% | 6.3V | |
| C640 | 1-126-206-11 | ELECT CHIP | 100uF | 20% | 6.3V | |
| C641 | 1-126-206-11 | ELECT CHIP | 100uF | 20% | 6.3V | |
| C642 | 1-126-206-11 | ELECT CHIP | 100uF | 20% | 6.3V | |
| C643 | 1-163-127-00 | CERAMIC CHIP | 270PF | 5% | 50V | |
| C644 | 1-163-139-00 | CERAMIC CHIP | 820PF | 5% | 50V | |
| C645 | 1-126-205-11 | ELECT CHIP | 47uF | 20% | 6.3V | |
| C646 | 1-164-232-11 | CERAMIC CHIP | 0.01uF | | 50V | |
| C647 | 1-126-193-11 | ELECT | 1uF | 20% | 50V | |
| C648 | 1-164-232-11 | CERAMIC CHIP | 0.01uF | | 50V | |
| C649 | 1-163-017-00 | CERAMIC CHIP | 0.0047uF | 5% | 50V | |
| C650 | 1-164-182-11 | CERAMIC CHIP | 0.0033uF | 10% | 50V | |
| C651 | 1-126-602-11 | ELECT CHIP | 3.3uF | 20% | 50V | |
| C652 | 1-126-193-11 | ELECT | 1uF | 20% | 50V | |
| C653 | 1-163-125-00 | CERAMIC CHIP | 220PF | 5% | 50V | |
| C654 | 1-163-098-00 | CERAMIC CHIP | 16PF | 5% | 50V | |
| C655 | 1-124-778-00 | ELECT CHIP | 22uF | 20% | 6.3V | |
| C656 | 1-163-009-11 | CERAMIC CHIP | 0.001uF | 10% | 50V | |
| C657 | 1-163-038-00 | CERAMIC CHIP | 0.1uF | | 25V | |
| C660 | 1-126-205-11 | ELECT CHIP | 47uF | 20% | 6.3V | |
| C661 | 1-163-038-00 | CERAMIC CHIP | 0.1uF | | 25V | |
| C663 | 1-124-499-11 | ELECT, NONPOLAR | 1uF | 20% | 50V | |
| C665 | 1-163-113-00 | CERAMIC CHIP | 68PF | 5% | 50V | |
| C666 | 1-164-232-11 | CERAMIC CHIP | 0.01uF | | 50V | |
| C667 | 1-124-499-11 | ELECT, NONPOLAR | 1uF | 20% | 50V | |
| C669 | 1-126-193-11 | ELECT | 1uF | 20% | 50V | |
| C671 | 1-163-098-00 | CERAMIC CHIP | 16PF | 5% | 50V | |
| C673 | 1-124-778-00 | ELECT CHIP | 22uF | 20% | 6.3V | |
| C674 | 1-163-038-00 | CERAMIC CHIP | 0.1uF | | 25V | |
| C677 | 1-126-205-11 | ELECT CHIP | 47uF | 20% | 6.3V | |
| C678 | 1-163-038-00 | CERAMIC CHIP | 0.1uF | | 25V | |

# MM-25

| Ref.No. | Part No. | Description | | | Remark |
|---|---|---|---|---|---|
| C681 | 1-163-227-11 | CERAMIC CHIP | 10PF | 5% | 50V |
| C685 | 1-124-778-00 | ELECT CHIP | 22uF | 20% | 6.3V |
| C686 | 1-163-038-00 | CERAMIC CHIP | 0.1uF | | 25V |
| C687 | 1-163-038-00 | CERAMIC CHIP | 0.1uF | | 25V |
| C688 | 1-126-206-11 | ELECT CHIP | 100uF | 20% | 6.3V |
| C690 | 1-126-206-11 | ELECT CHIP | 100uF | 20% | 6.3V |
| C691 | 1-126-205-11 | ELECT CHIP | 47uF | 20% | 6.3V |
| C693 | 1-124-779-00 | ELECT CHIP | 10uF | 20% | 16v |
| C694 | 1-124-778-00 | ELECT CHIP | 22uF | 20% | 6.3V |
| C695 | 1-163-809-11 | CERAMIC CHIP | 0.047uF | 10% | 25V |
| C696 | 1-124-779-00 | ELECT CHIP | 10uF | 20% | 16v |
| C697 | 1-163-092-00 | CERAMIC CHIP | 9PF | 0.25PF | 50V |
| C698 | 1-163-113-00 | CERAMIC CHIP | 68PF | 5% | 50V |
| C699 | 1-164-232-11 | CERAMIC CHIP | 0.01uF | | 50V |
| C700 | 1-163-038-00 | CERAMIC CHIP | 0.1uF | | 25V |
| C701 | 1-126-205-11 | ELECT CHIP | 47uF | 20% | 6.3V |
| C702 | 1-126-205-11 | ELECT CHIP | 47uF | 20% | 6.3V |
| C722 | 1-124-778-00 | ELECT CHIP | 22uF | 20% | 6.3V |
| C723 | 1-124-778-00 | ELECT CHIP | 22uF | 20% | 6.3V |
| C726 | 1-163-038-00 | CERAMIC CHIP | 0.1uF | | 25V |
| C727 | 1-163-038-00 | CERAMIC CHIP | 0.1uF | | 25V |
| C729 | 1-163-038-00 | CERAMIC CHIP | 0.1uF | | 25V |
| C730 | 1-163-038-00 | CERAMIC CHIP | 0.1uF | | 25V |
| C731 | 1-163-038-00 | CERAMIC CHIP | 0.1uF | | 25V |
| C732 | 1-163-038-00 | CERAMIC CHIP | 0.1uF | | 25V |
| C733 | 1-163-038-00 | CERAMIC CHIP | 0.1uF | | 25V |
| C734 | 1-163-038-00 | CERAMIC CHIP | 0.1uF | | 25V |
| C735 | 1-163-038-00 | CERAMIC CHIP | 0.1uF | | 25V |
| C736 | 1-163-038-00 | CERAMIC CHIP | 0.1uF | | 25V |
| C737 | 1-163-038-00 | CERAMIC CHIP | 0.1uF | | 25V |
| C738 | 1-163-038-00 | CERAMIC CHIP | 0.1uF | | 25V |
| C739 | 1-163-038-00 | CERAMIC CHIP | 0.1uF | | 25V |
| C740 | 1-164-232-11 | CERAMIC CHIP | 0.01uF | | 50V |
| C742 | 1-163-113-00 | CERAMIC CHIP | 68PF | 5% | 50V |
| C743 | 1-163-113-00 | CERAMIC CHIP | 68PF | 5% | 50V |
| C750 | 1-126-206-11 | ELECT CHIP | 100uF | 20% | 6.3V |
| C900 | 1-126-205-11 | ELECT CHIP | 47uF | 20% | 6.3V |
| C901 | 1-163-038-00 | CERAMIC CHIP | 0.1uF | | 25V |
| C902 | 1-126-187-11 | ELECT CHIP | 0.1uF | 20% | 50V |
| C903 | 1-163-038-00 | CERAMIC CHIP | 0.1uF | | 25V |
| C909 | 1-163-038-00 | CERAMIC CHIP | 0.1uF | | 25V |
| C911 | 1-163-133-00 | CERAMIC CHIP | 470PF | 5% | 50V |
| C914 | 1-163-038-00 | CERAMIC CHIP | 0.1uF | | 25V |
| C919 | 1-124-779-00 | ELECT CHIP | 10uF | 20% | 16v |
| C920 | 1-163-038-00 | CERAMIC CHIP | 0.1uF | | 25V |
| C921 | 1-163-038-00 | CERAMIC CHIP | 0.1uF | | 25V |
| C922 | 1-124-779-00 | ELECT CHIP | 10uF | 20% | 16v |
| C923 | 1-163-141-00 | CERAMIC CHIP | 0.001uF | 5% | 50V |
| C924 | 1-163-141-00 | CERAMIC CHIP | 0.001uF | 5% | 50V |

| Ref.No. | Part No. | Description | | | Remark |
|---|---|---|---|---|---|
| C925 | 1-126-191-11 | ELECT CHIP | 0.47uF | 20% | 50V |
| C926 | 1-163-117-00 | CERAMIC CHIP | 100PF | 5% | 50V |
| C927 | 1-163-038-00 | CERAMIC CHIP | 0.1uF | | 25V |
| C928 | 1-124-778-00 | ELECT CHIP | 22uF | 20% | 6.3V |
| C930 | 1-163-105-00 | CERAMIC CHIP | 33PF | 5% | 50V |
| C931 | 1-164-633-11 | CERAMIC CHIP | 0.1uF | 10% | 25V |
| C932 | 1-164-232-11 | CERAMIC CHIP | 0.01uF | | 50V |
| C933 | 1-164-232-11 | CERAMIC CHIP | 0.01uF | | 50V |
| C934 | 1-164-232-11 | CERAMIC CHIP | 0.01uF | | 50V |
| C935 | 1-164-232-11 | CERAMIC CHIP | 0.01uF | | 50V |
| C936 | 1-164-232-11 | CERAMIC CHIP | 0.01uF | | 50V |
| C937 | 1-164-232-11 | CERAMIC CHIP | 0.01uF | | 50V |
| C938 | 1-164-346-11 | CERAMIC CHIP | 1uF | | 16V |
| C939 | 1-164-232-11 | CERAMIC CHIP | 0.01uF | | 50V |
| C940 | 1-164-346-11 | CERAMIC CHIP | 1uF | | 16V |
| C941 | 1-164-232-11 | CERAMIC CHIP | 0.01uF | | 50V |
| C946 | 1-164-346-11 | CERAMIC CHIP | 1uF | | 16V |
| C947 | 1-164-232-11 | CERAMIC CHIP | 0.01uF | | 50V |
| C948 | 1-164-346-11 | CERAMIC CHIP | 1uF | | 16V |
| C949 | 1-164-232-11 | CERAMIC CHIP | 0.01uF | | 50V |
| C952 | 1-164-232-11 | CERAMIC CHIP | 0.01uF | | 50V |
| C953 | 1-164-232-11 | CERAMIC CHIP | 0.01uF | | 50V |
| C954 | 1-164-232-11 | CERAMIC CHIP | 0.01uF | | 50V |
| C955 | 1-164-232-11 | CERAMIC CHIP | 0.01uF | | 50V |
| C956 | 1-164-232-11 | CERAMIC CHIP | 0.01uF | | 50V |
| C957 | 1-164-232-11 | CERAMIC CHIP | 0.01uF | | 50V |
| C958 | 1-164-232-11 | CERAMIC CHIP | 0.01uF | | 50V |
| C959 | 1-164-232-11 | CERAMIC CHIP | 0.01uF | | 50V |
| C960 | 1-164-232-11 | CERAMIC CHIP | 0.01uF | | 50V |
| C962 | 1-164-232-11 | CERAMIC CHIP | 0.01uF | | 50V |
| C963 | 1-163-125-00 | CERAMIC CHIP | 220PF | 5% | 50V |
| C964 | 1-163-251-11 | CERAMIC CHIP | 100PF | 5% | 50V |
| C965 | 1-164-232-11 | CERAMIC CHIP | 0.01uF | | 50V |
| C972 | 1-164-232-11 | CERAMIC CHIP | 0.01uF | | 50V |
| C973 | 1-164-346-11 | CERAMIC CHIP | 1uF | | 16V |

< CONNECTOR >

| | | |
|---|---|---|
| CN001 | 1-506-475-11 | CONNECTOR 10P, MALE |
| CN002 | 1-506-471-11 | CONNECTOR 6P, MALE |
| CN003 | 1-506-473-11 | CONNECTOR 8P, MALE |

< TRIMMER >

| | | |
|---|---|---|
| CV701 | 1-141-347-11 | CAP, VAR, TRIMMER (CHIP) |
| CV703 | 1-141-311-11 | CAP, TRIMMER 20PF |
| CV704 | 1-141-311-11 | CAP, TRIMMER 20PF |
| CV705 | 1-141-347-11 | CAP, VAR, TRIMMER (CHIP) |

< DIODE >

| | | |
|---|---|---|
| D701 | 8-713-300-88 | DIODE 1T33C-01 |

| Ref. No. | Part No. | Description | Remark |
|---|---|---|---|
| D702 | 8-719-949-46 | DIODE 1T32 | |
| D901 | 8-719-400-18 | DIODE MA152WK | |
| D906 | 8-719-400-18 | DIODE MA152WK | |
| D907 | 8-719-400-18 | DIODE MA152WK | |
| | | < FILTER > | |
| FL601 | 1-421-927-21 | FILTER, NOISE | |
| FL602 | 1-421-927-21 | FILTER, NOISE | |
| FL701 | 1-236-564-11 | FILTER, LOW PASS | |
| FL702 | 1-236-835-11 | FILTER, BAND PASS | |
| FL703 | 1-415-637-11 | DL (LC) | |
| FL900 | 1-421-928-11 | FILTER, NOISE | |
| FL901 | 1-421-928-11 | FILTER, NOISE | |
| FL902 | 1-421-928-11 | FILTER, NOISE | |
| FL903 | 1-421-928-11 | FILTER, NOISE | |
| FL904 | 1-421-928-11 | FILTER, NOISE | |
| FL905 | 1-421-928-11 | FILTER, NOISE | |
| FL906 | 1-421-928-11 | FILTER, NOISE | |
| FL907 | 1-421-928-11 | FILTER, NOISE | |
| | | < IC > | |
| IC701 | 8-759-987-17 | IC CXD1226Q | |
| IC702 | 8-759-987-18 | IC CXD1227Q | |
| IC703 | 8-759-500-94 | IC CXD2108Q | |
| IC704 | 8-759-987-20 | IC CXD1229Q | |
| IC705 | 8-752-337-41 | IC CXK1206M | |
| IC706 | 8-752-337-41 | IC CXK1206M | |
| IC707 | 8-752-337-41 | IC CXK1206M | |
| IC708 | 8-752-334-55 | IC CXD1175AM | |
| IC709 | 8-752-334-55 | IC CXD1175AM | |
| IC710 | 8-752-032-96 | IC CXA1106M | |
| IC711 | 8-752-032-96 | IC CXA1106M | |
| IC900 | 8-759-987-27 | IC LM1881M | |
| IC902 | 8-759-206-28 | IC MC74HC123AF | |
| IC904 | 8-759-927-46 | IC SN74HC00ANS | |
| IC905 | 8-759-710-62 | IC NJM2246M | |
| IC906 | 8-759-710-61 | IC NJM2229M | |
| IC907 | 8-759-239-34 | IC TC74HC4538AF | |
| IC908 | 8-759-925-76 | IC SN74HC08ANS | |
| | | < COIL > | |
| L601 | 1-410-389-31 | INDUCTOR, CHIP 47uH | |
| L602 | 1-410-389-31 | INDUCTOR, CHIP 47uH | |
| L604 | 1-408-785-21 | INDUCTOR, CHIP 47uH | |
| L605 | 1-408-785-21 | INDUCTOR, CHIP 47uH | |
| L606 | 1-408-785-21 | INDUCTOR, CHIP 47uH | |
| L607 | 1-410-658-31 | INDUCTOR, CHIP 220uH | |
| L608 | 1-410-389-31 | INDUCTOR, CHIP 47uH | |
| L611 | 1-410-378-11 | INDUCTOR, CHIP 5.6uH | |
| L612 | 1-408-785-21 | INDUCTOR, CHIP 47uH | |
| L614 | 1-408-785-21 | INDUCTOR, CHIP 47uH | |
| L615 | 1-408-785-21 | INDUCTOR, CHIP 47uH | |
| L616 | 1-410-389-31 | INDUCTOR, CHIP 47uH | |
| L617 | 1-410-656-11 | INDUCTOR, CHIP 150uH | |
| L623 | 1-410-389-31 | INDUCTOR, CHIP 47uH | |
| L624 | 1-410-389-31 | INDUCTOR, CHIP 47uH | |
| L701 | 1-410-371-41 | INDUCTOR, CHIP 1.5uH | |
| L705 | 1-408-785-21 | INDUCTOR, CHIP 47uH | |
| L900 | 1-408-785-21 | INDUCTOR, CHIP 47uH | |
| | | < TRANSISTOR > | |
| Q603 | 8-729-100-66 | TRANSISTOR 2SC1623 | |
| Q604 | 8-729-100-66 | TRANSISTOR 2SC1623 | |
| Q605 | 8-729-100-66 | TRANSISTOR 2SC1623 | |
| Q606 | 8-729-100-66 | TRANSISTOR 2SC1623 | |
| Q607 | 8-729-100-66 | TRANSISTOR 2SC1623 | |
| Q608 | 8-729-100-66 | TRANSISTOR 2SC1623 | |
| Q609 | 8-729-216-22 | TRANSISTOR 2SA1162 | |
| Q610 | 8-729-100-66 | TRANSISTOR 2SC1623 | |
| Q611 | 8-729-100-66 | TRANSISTOR 2SC1623 | |
| Q612 | 8-729-100-66 | TRANSISTOR 2SC1623 | |
| Q613 | 8-729-100-66 | TRANSISTOR 2SC1623 | |
| Q614 | 8-729-100-66 | TRANSISTOR 2SC1623 | |
| Q615 | 8-729-100-66 | TRANSISTOR 2SC1623 | |
| Q616 | 8-729-100-66 | TRANSISTOR 2SC1623 | |
| Q617 | 8-729-100-66 | TRANSISTOR 2SC1623 | |
| Q618 | 8-729-100-66 | TRANSISTOR 2SC1623 | |
| Q619 | 8-729-100-66 | TRANSISTOR 2SC1623 | |
| Q628 | 8-729-100-66 | TRANSISTOR 2SC1623 | |
| Q701 | 8-729-102-08 | TRANSISTOR 2SC2223 | |
| Q702 | 8-729-122-63 | TRANSISTOR 2SA1226 | |
| Q900 | 8-729-100-66 | TRANSISTOR 2SC1623 | |
| Q901 | 8-729-216-22 | TRANSISTOR 2SA1162 | |
| Q903 | 8-729-100-66 | TRANSISTOR 2SC1623 | |
| Q904 | 8-729-901-01 | TRANSISTOR DTC144EK | |
| Q905 | 8-729-100-66 | TRANSISTOR 2SC1623 | |
| Q906 | 8-729-100-66 | TRANSISTOR 2SC1623 | |
| | | < RESISTOR > | |
| R628 | 1-216-073-00 | METAL CHIP 10K 5% 1/10W | |
| R629 | 1-216-041-00 | METAL CHIP 470 5% 1/10W | |
| R630 | 1-216-037-00 | METAL CHIP 330 5% 1/10W | |
| R631 | 1-216-047-00 | METAL CHIP 820 5% 1/10W | |
| R632 | 1-216-081-00 | METAL CHIP 22K 5% 1/10W | |
| R633 | 1-216-048-00 | METAL CHIP 910 5% 1/10W | |
| R636 | 1-216-049-00 | METAL CHIP 1K 5% 1/10W | |
| R638 | 1-216-025-00 | METAL CHIP 100 5% 1/10W | |
| R639 | 1-216-049-00 | METAL CHIP 1K 5% 1/10W | |

## MM-25

| Ref. No. | Part No. | Description | | | | Remark |
|---|---|---|---|---|---|---|
| R641 | 1-216-073-00 | METAL CHIP | 10K | 5% | 1/10W | |
| R642 | 1-216-050-00 | METAL GLAZE | 1.1K | 5% | 1/10W | |
| R643 | 1-216-051-00 | METAL CHIP | 1.2K | 5% | 1/10W | |
| R644 | 1-216-081-00 | METAL CHIP | 22K | 5% | 1/10W | |
| R645 | 1-216-079-00 | METAL CHIP | 18K | 5% | 1/10W | |
| R646 | 1-216-053-00 | METAL CHIP | 1.5K | 5% | 1/10W | |
| R647 | 1-216-025-00 | METAL CHIP | 100 | 5% | 1/10W | |
| R648 | 1-216-073-00 | METAL CHIP | 10K | 5% | 1/10W | |
| R649 | 1-216-073-00 | METAL CHIP | 10K | 5% | 1/10W | |
| R650 | 1-216-041-00 | METAL CHIP | 470 | 5% | 1/10W | |
| R651 | 1-216-057-00 | METAL CHIP | 2.2K | 5% | 1/10W | |
| R652 | 1-216-061-00 | METAL CHIP | 3.3K | 5% | 1/10W | |
| R653 | 1-216-057-00 | METAL CHIP | 2.2K | 5% | 1/10W | |
| R654 | 1-216-019-00 | METAL CHIP | 56 | 5% | 1/10W | |
| R655 | 1-216-049-00 | METAL CHIP | 1K | 5% | 1/10W | |
| R656 | 1-216-057-00 | METAL CHIP | 2.2K | 5% | 1/10W | |
| R657 | 1-216-021-00 | METAL CHIP | 68 | 5% | 1/10W | |
| R658 | 1-216-049-00 | METAL CHIP | 1K | 5% | 1/10W | |
| R659 | 1-216-117-00 | METAL CHIP | 680K | 5% | 1/10W | |
| R660 | 1-216-085-00 | METAL CHIP | 33K | 5% | 1/10W | |
| R661 | 1-216-085-00 | METAL CHIP | 33K | 5% | 1/10W | |
| R662 | 1-216-085-00 | METAL CHIP | 33K | 5% | 1/10W | |
| R663 | 1-216-073-00 | METAL CHIP | 10K | 5% | 1/10W | |
| R664 | 1-216-085-00 | METAL CHIP | 33K | 5% | 1/10W | |
| R665 | 1-216-049-00 | METAL CHIP | 1K | 5% | 1/10W | |
| R666 | 1-216-053-00 | METAL CHIP | 1.5K | 5% | 1/10W | |
| R672 | 1-216-295-00 | METAL CHIP | 0 | 5% | 1/10W | |
| R678 | 1-216-295-00 | METAL CHIP | 0 | 5% | 1/10W | |
| R679 | 1-216-119-00 | METAL CHIP | 820K | 5% | 1/10W | |
| R680 | 1-216-111-00 | METAL CHIP | 390K | 5% | 1/10W | |
| R681 | 1-216-105-00 | METAL CHIP | 220K | 5% | 1/10W | |
| R682 | 1-216-097-00 | METAL CHIP | 100K | 5% | 1/10W | |
| R686 | 1-216-053-00 | METAL CHIP | 1.5K | 5% | 1/10W | |
| R687 | 1-216-097-00 | METAL CHIP | 100K | 5% | 1/10W | |
| R688 | 1-216-119-00 | METAL CHIP | 820K | 5% | 1/10W | |
| R689 | 1-216-111-00 | METAL CHIP | 390K | 5% | 1/10W | |
| R690 | 1-216-105-00 | METAL CHIP | 220K | 5% | 1/10W | |
| R691 | 1-216-097-00 | METAL CHIP | 100K | 5% | 1/10W | |
| R692 | 1-216-073-00 | METAL CHIP | 10K | 5% | 1/10W | |
| R693 | 1-216-121-00 | METAL CHIP | 1M | 5% | 1/10W | |
| R694 | 1-216-085-00 | METAL CHIP | 33K | 5% | 1/10W | |
| R695 | 1-216-085-00 | METAL CHIP | 33K | 5% | 1/10W | |
| R696 | 1-216-009-00 | METAL CHIP | 22 | 5% | 1/10W | |
| R699 | 1-216-295-00 | METAL CHIP | 0 | 5% | 1/10W | |
| R702 | 1-216-295-00 | METAL CHIP | 0 | 5% | 1/10W | |
| R703 | 1-216-029-00 | METAL CHIP | 150 | 5% | 1/10W | |
| R704 | 1-216-121-00 | METAL CHIP | 1M | 5% | 1/10W | |
| R710 | 1-216-077-00 | METAL CHIP | 15K | 5% | 1/10W | |
| R711 | 1-216-077-00 | METAL CHIP | 15K | 5% | 1/10W | |
| R712 | 1-216-011-00 | METAL CHIP | 27 | 5% | 1/10W | |
| R713 | 1-216-041-00 | METAL CHIP | 470 | 5% | 1/10W | |
| R714 | 1-216-025-00 | METAL CHIP | 100 | 5% | 1/10W | |
| R715 | 1-216-049-00 | METAL CHIP | 1K | 5% | 1/10W | |
| R716 | 1-216-295-00 | METAL CHIP | 0 | 5% | 1/10W | |
| R723 | 1-216-029-00 | METAL CHIP | 150 | 5% | 1/10W | |
| R725 | 1-216-121-00 | METAL CHIP | 1M | 5% | 1/10W | |
| R727 | 1-216-061-00 | METAL CHIP | 3.3K | 5% | 1/10W | |
| R728 | 1-216-295-00 | METAL CHIP | 0 | 5% | 1/10W | |
| R729 | 1-216-025-00 | METAL CHIP | 100 | 5% | 1/10W | |
| R730 | 1-216-041-00 | METAL CHIP | 470 | 5% | 1/10W | |
| R731 | 1-216-049-00 | METAL CHIP | 1K | 5% | 1/10W | |
| R733 | 1-216-050-00 | METAL GLAZE | 1.1K | 5% | 1/10W | |
| R734 | 1-216-081-00 | METAL CHIP | 22K | 5% | 1/10W | |
| R735 | 1-216-077-00 | METAL CHIP | 15K | 5% | 1/10W | |
| R736 | 1-216-035-00 | METAL CHIP | 270 | 5% | 1/10W | |
| R737 | 1-216-043-00 | METAL CHIP | 560 | 5% | 1/10W | |
| R738 | 1-216-043-00 | METAL CHIP | 560 | 5% | 1/10W | |
| R739 | 1-216-061-00 | METAL CHIP | 3.3K | 5% | 1/10W | |
| R740 | 1-216-031-00 | METAL CHIP | 180 | 5% | 1/10W | |
| R741 | 1-216-025-00 | METAL CHIP | 100 | 5% | 1/10W | |
| R742 | 1-216-041-00 | METAL CHIP | 470 | 5% | 1/10W | |
| R743 | 1-216-049-00 | METAL CHIP | 1K | 5% | 1/10W | |
| R745 | 1-216-081-00 | METAL CHIP | 22K | 5% | 1/10W | |
| R746 | 1-216-051-00 | METAL CHIP | 1.2K | 5% | 1/10W | |
| R747 | 1-216-077-00 | METAL CHIP | 15K | 5% | 1/10W | |
| R748 | 1-216-035-00 | METAL CHIP | 270 | 5% | 1/10W | |
| R767 | 1-216-061-00 | METAL CHIP | 3.3K | 5% | 1/10W | |
| R768 | 1-216-077-00 | METAL CHIP | 15K | 5% | 1/10W | |
| R769 | 1-216-081-00 | METAL CHIP | 22K | 5% | 1/10W | |
| R770 | 1-216-041-00 | METAL CHIP | 470 | 5% | 1/10W | |
| R771 | 1-216-051-00 | METAL CHIP | 1.2K | 5% | 1/10W | |
| R772 | 1-216-051-00 | METAL CHIP | 1.2K | 5% | 1/10W | |
| R773 | 1-216-081-00 | METAL CHIP | 22K | 5% | 1/10W | |
| R774 | 1-216-077-00 | METAL CHIP | 15K | 5% | 1/10W | |
| R775 | 1-216-041-00 | METAL CHIP | 470 | 5% | 1/10W | |
| R776 | 1-216-073-00 | METAL CHIP | 10K | 5% | 1/10W | |
| R777 | 1-216-059-00 | METAL CHIP | 2.7K | 5% | 1/10W | |
| R778 | 1-216-049-00 | METAL CHIP | 1K | 5% | 1/10W | |
| R779 | 1-216-049-00 | METAL CHIP | 1K | 5% | 1/10W | |
| R780 | 1-216-035-00 | METAL CHIP | 270 | 5% | 1/10W | |
| R788 | 1-216-061-00 | METAL CHIP | 3.3K | 5% | 1/10W | |
| R789 | 1-216-089-00 | METAL CHIP | 47K | 5% | 1/10W | |
| R790 | 1-216-089-00 | METAL CHIP | 47K | 5% | 1/10W | |
| R791 | 1-216-073-00 | METAL CHIP | 10K | 5% | 1/10W | |
| R795 | 1-216-295-00 | METAL CHIP | 0 | 5% | 1/10W | |
| R796 | 1-216-295-00 | METAL CHIP | 0 | 5% | 1/10W | |
| R799 | 1-216-295-00 | METAL CHIP | 0 | 5% | 1/10W | |

| Ref. No. | Part No. | Description | | | | Remark |
|---|---|---|---|---|---|---|
| R901 | 1-216-117-00 | METAL CHIP | 680K | 5% | 1/10W | |
| R902 | 1-216-049-00 | METAL CHIP | 1K | 5% | 1/10W | |
| R903 | 1-216-049-00 | METAL CHIP | 1K | 5% | 1/10W | |
| R904 | 1-216-295-00 | METAL CHIP | 0 | 5% | 1/10W | |
| R906 | 1-216-061-00 | METAL CHIP | 3.3K | 5% | 1/10W | |
| R912 | 1-216-089-00 | METAL CHIP | 47K | 5% | 1/10W | |
| R913 | 1-216-073-00 | METAL CHIP | 10K | 5% | 1/10W | |
| R917 | 1-216-073-00 | METAL CHIP | 10K | 5% | 1/10W | |
| R918 | 1-216-073-00 | METAL CHIP | 10K | 5% | 1/10W | |
| R919 | 1-216-117-00 | METAL CHIP | 680K | 5% | 1/10W | |
| R920 | 1-216-073-00 | METAL CHIP | 10K | 5% | 1/10W | |
| R921 | 1-216-053-00 | METAL CHIP | 1.5K | 5% | 1/10W | |
| R922 | 1-216-037-00 | METAL CHIP | 330 | 5% | 1/10W | |
| R923 | 1-216-097-00 | METAL CHIP | 100K | 5% | 1/10W | |
| R924 | 1-216-073-00 | METAL CHIP | 10K | 5% | 1/10W | |
| R931 | 1-216-079-00 | METAL CHIP | 18K | 5% | 1/10W | |
| R932 | 1-216-049-00 | METAL CHIP | 1K | 5% | 1/10W | |
| R935 | 1-216-025-00 | METAL CHIP | 100 | 5% | 1/10W | |
| R937 | 1-216-085-00 | METAL CHIP | 33K | 5% | 1/10W | |
| R939 | 1-216-295-00 | METAL CHIP | 0 | 5% | 1/10W | |
| R942 | 1-216-295-00 | METAL CHIP | 0 | 5% | 1/10W | |
| R944 | 1-216-295-00 | METAL CHIP | 0 | 5% | 1/10W | |
| R945 | 1-216-295-00 | METAL CHIP | 0 | 5% | 1/10W | |
| R950 | 1-216-295-00 | METAL CHIP | 0 | 5% | 1/10W | |
| R951 | 1-216-295-00 | METAL CHIP | 0 | 5% | 1/10W | |
| R952 | 1-216-295-00 | METAL CHIP | 0 | 5% | 1/10W | |
| R953 | 1-216-295-00 | METAL CHIP | 0 | 5% | 1/10W | |
| R954 | 1-216-295-00 | METAL CHIP | 0 | 5% | 1/10W | |
| R955 | 1-216-295-00 | METAL CHIP | 0 | 5% | 1/10W | |
| R956 | 1-216-295-00 | METAL CHIP | 0 | 5% | 1/10W | |
| R957 | 1-216-295-00 | METAL CHIP | 0 | 5% | 1/10W | |
| R960 | 1-216-073-00 | METAL CHIP | 10K | 5% | 1/10W | |
| R961 | 1-216-075-00 | METAL CHIP | 12K | 5% | 1/10W | |
| R964 | 1-216-073-00 | METAL CHIP | 10K | 5% | 1/10W | |
| R965 | 1-216-073-00 | METAL CHIP | 10K | 5% | 1/10W | |
| R968 | 1-216-065-00 | METAL CHIP | 4.7K | 5% | 1/10W | |
| R970 | 1-216-073-00 | METAL CHIP | 10K | 5% | 1/10W | |
| R971 | 1-216-077-00 | METAL CHIP | 15K | 5% | 1/10W | |
| R972 | 1-216-045-00 | METAL CHIP | 680 | 5% | 1/10W | |
| R973 | 1-216-033-00 | METAL CHIP | 220 | 5% | 1/10W | |
| R976 | 1-216-073-00 | METAL CHIP | 10K | 5% | 1/10W | |
| R977 | 1-216-073-00 | METAL CHIP | 10K | 5% | 1/10W | |
| R978 | 1-216-037-00 | METAL CHIP | 330 | 5% | 1/10W | |
| R980 | 1-216-295-00 | METAL CHIP | 0 | 5% | 1/10W | |
| R984 | 1-216-819-11 | METAL CHIP | 680 | 5% | 1/16W | |

< VARIABLE RESISTOR >

| Ref. No. | Part No. | Description | Remark |
|---|---|---|---|
| RV601 | 1-230-867-11 | RES, ADJ, METAL 1K | |
| RV602 | 1-230-866-11 | RES, ADJ, METAL 470 | |
| RV603 | 1-230-866-11 | RES, ADJ, METAL 470 | |
| RV604 | 1-230-866-11 | RES, ADJ, METAL 470 | |
| RV902 | 1-230-870-11 | RES, ADJ, METAL 10K | |

< VIBRATOR >

| | | |
|---|---|---|
| X701 | 1-567-344-21 | VIBRATOR, CRYSTAL (VCO) |
| X702 | 1-567-733-11 | VIBRATOR, CRYSTAL |
| X703 | 1-577-704-11 | VIBRATOR, CRYSTAL |

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A-7040-159-A MS-4 BOARD, COMPLETE

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(Ref.No 8.000 Series)

| | | | |
|---|---|---|---|
| 1-163-038-00 | CERAMIC CHIP | 0.1uF | 25V |
| 1-506-485-11 | CONNECTOR 6P, MALE | | |

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* A-7061-826-A PA-27 BOARD, COMPLETE

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(Ref.No 7.000 Series)

< CAPACITOR >

| | | | | | |
|---|---|---|---|---|---|
| C001 | 1-163-012-00 | CERAMIC CHIP | 0.0018uF | 10% | 50V |
| C002 | 1-124-584-00 | ELECT | 100uF | 20% | 10V |
| C003 | 1-126-154-11 | ELECT | 47uF | 20% | 6.3V |
| C004 | 1-126-154-11 | ELECT | 47uF | 20% | 6.3V |
| C005 | 1-130-490-11 | MYLAR | 0.039uF | 5% | 50V |
| C006 | 1-163-125-00 | CERAMIC CHIP | 220PF | 5% | 50V |
| C007 | 1-130-479-00 | MYLAR | 0.0047uF | 5% | 50V |
| C008 | 1-126-154-11 | ELECT | 47uF | 20% | 6.3V |
| C009 | 1-163-097-00 | CERAMIC CHIP | 15PF | 5% | 50V |
| C010 | 1-126-154-11 | ELECT | 47uF | 20% | 6.3V |
| C011 | 1-130-469-00 | MYLAR | 680PF | 5% | 50V |
| C012 | 1-130-482-00 | MYLAR | 0.0082uF | 5% | 50V |
| C013 | 1-135-149-21 | TANTALUM CHIP | 2.2uF | 20% | 10V |
| C014 | 1-135-156-21 | TANTALUM CHIP | 6.8uF | 10% | 6.3V |
| C015 | 1-135-072-21 | TANTALUM CHIP | 0.22uF | 10% | 35V |
| C016 | 1-126-153-11 | ELECT | 22uF | 20% | 6.3V |
| C017 | 1-163-251-11 | CERAMIC CHIP | 100PF | 5% | 50V |
| C018 | 1-126-153-11 | ELECT | 22uF | 20% | 6.3V |
| C019 | 1-126-153-11 | ELECT | 22uF | 20% | 6.3V |
| C031 | 1-124-584-00 | ELECT | 100uF | 20% | 10V |
| C032 | 1-124-584-00 | ELECT | 100uF | 20% | 10V |
| C033 | 1-163-035-00 | CERAMIC CHIP | 0.047uF | | 50V |
| C034 | 1-126-154-11 | ELECT | 47uF | 20% | 6.3V |
| C035 | 1-126-154-11 | ELECT | 47uF | 20% | 6.3V |
| C036 | 1-163-035-00 | CERAMIC CHIP | 0.047uF | | 50V |

## PA-27

| Ref. No. | Part No. | Description | | | Remark |
|---|---|---|---|---|---|
| C037 | 1-126-154-11 | ELECT | 47uF | 20% | 6.3V |
| C038 | 1-135-156-21 | TANTALUM CHIP | 6.8uF | 10% | 6.3V |
| C039 | 1-164-232-11 | CERAMIC CHIP | 0.01uF | | 50V |
| C040 | 1-164-232-11 | CERAMIC CHIP | 0.01uF | | 50V |
| C041 | 1-109-814-11 | CAP, CHIP MICA | 220PF | | |
| C042 | 1-126-154-11 | ELECT | 47uF | 20% | 6.3V |
| C043 | 1-126-153-11 | ELECT | 22uF | 20% | 6.3V |
| C044 | 1-126-154-11 | ELECT | 47uF | 20% | 6.3V |
| C051 | 1-163-012-00 | CERAMIC CHIP | 0.0018uF | 10% | 50V |
| C052 | 1-124-584-00 | ELECT | 100uF | 20% | 10V |
| C053 | 1-126-154-11 | ELECT | 47uF | 20% | 6.3V |
| C054 | 1-126-154-11 | ELECT | 47uF | 20% | 6.3V |
| C055 | 1-130-490-11 | MYLAR | 0.039uF | 5% | 50V |
| C056 | 1-163-125-00 | CERAMIC CHIP | 220PF | 5% | 50V |
| C057 | 1-130-479-00 | MYLAR | 0.0047uF | 5% | 50V |
| C058 | 1-126-154-11 | ELECT | 47uF | 20% | 6.3V |
| C059 | 1-163-097-00 | CERAMIC CHIP | 15PF | 5% | 50V |
| C060 | 1-126-154-11 | ELECT | 47uF | 20% | 6.3V |
| C061 | 1-130-469-00 | MYLAR | 680PF | 5% | 50V |
| C062 | 1-130-482-00 | MYLAR | 0.0082uF | 5% | 50V |
| C063 | 1-135-149-21 | TANTALUM CHIP | 2.2uF | 20% | 10V |
| C064 | 1-135-156-21 | TANTALUM CHIP | 6.8uF | 10% | 6.3V |
| C065 | 1-135-072-21 | TANTALUM CHIP | 0.22uF | 10% | 35V |
| C066 | 1-126-153-11 | ELECT | 22uF | 20% | 6.3V |
| C067 | 1-163-251-11 | CERAMIC CHIP | 100PF | 5% | 50V |
| C068 | 1-126-153-11 | ELECT | 22uF | 20% | 6.3V |
| C069 | 1-126-153-11 | ELECT | 22uF | 20% | 6.3V |

< CONNECTOR >

| | | |
|---|---|---|
| CN001 | 1-563-314-11 | CONNECTOR, BOARD TO BOARD 20P |

< DIODE >

| | | | |
|---|---|---|---|
| D031 | 8-719-104-34 | DIODE | 1S2835-T1 |
| D032 | 8-719-104-34 | DIODE | 1S2835-T1 |
| D033 | 8-719-104-34 | DIODE | 1S2835-T1 |

< IC >

| | | | |
|---|---|---|---|
| IC001 | 8-752-009-90 | IC | CX20099 |
| IC002 | 8-759-981-92 | IC | NJM4558M-T1 |
| IC003 | 8-759-981-92 | IC | NJM4558M-T1 |

< COIL >

| | | |
|---|---|---|
| L001 | 1-408-793-21 | INDUCTOR, CHIP 220uH |

< TRANSISTOR >

| Ref. No. | Part No. | Description | | Remark |
|---|---|---|---|---|
| Q001 | 8-729-202-38 | TRANSISTOR | 2SC3326N | |
| Q002 | 8-729-202-38 | TRANSISTOR | 2SC3326N | |
| Q031 | 8-729-901-06 | TRANSISTOR | DTA144EK | |
| Q032 | 8-729-901-06 | TRANSISTOR | DTA144EK | |
| Q033 | 8-729-901-06 | TRANSISTOR | DTA144EK | |
| Q034 | 8-729-216-22 | TRANSISTOR | 2SA1162 | |
| Q035 | 8-729-216-22 | TRANSISTOR | 2SA1162 | |
| Q051 | 8-729-202-38 | TRANSISTOR | 2SC3326N | |
| Q052 | 8-729-202-38 | TRANSISTOR | 2SC3326N | |

< RESISTOR >

| | | | | | |
|---|---|---|---|---|---|
| R001 | 1-216-043-00 | METAL CHIP | 560 | 5% | 1/10W |
| R002 | 1-216-078-00 | METAL GLAZE | 16K | 5% | 1/10W |
| R003 | 1-216-072-00 | METAL CHIP | 9.1K | 5% | 1/10W |
| R004 | 1-216-089-00 | METAL CHIP | 47K | 5% | 1/10W |
| R005 | 1-216-073-00 | METAL CHIP | 10K | 5% | 1/10W |
| R006 | 1-216-065-00 | METAL CHIP | 4.7K | 5% | 1/10W |
| R007 | 1-216-073-00 | METAL CHIP | 10K | 5% | 1/10W |
| R008 | 1-216-059-00 | METAL CHIP | 2.7K | 5% | 1/10W |
| R009 | 1-216-045-00 | METAL CHIP | 680 | 5% | 1/10W |
| R010 | 1-216-057-00 | METAL CHIP | 2.2K | 5% | 1/10W |
| R012 | 1-216-677-11 | METAL CHIP | 12K | 0.5% | 1/10W |
| R013 | 1-216-061-00 | METAL CHIP | 3.3K | 5% | 1/10W |
| R014 | 1-216-061-00 | METAL CHIP | 3.3K | 5% | 1/10W |
| R015 | 1-216-059-00 | METAL CHIP | 2.7K | 5% | 1/10W |
| R016 | 1-216-060-00 | METAL GLAZE | 3K | 5% | 1/10W |
| R017 | 1-216-058-00 | METAL GLAZE | 2.4K | 5% | 1/10W |
| R018 | 1-216-748-11 | METAL CHIP | 39K | 5% | 1/10W |
| R019 | 1-216-077-00 | METAL CHIP | 15K | 5% | 1/10W |
| R020 | 1-216-065-00 | METAL CHIP | 4.7K | 5% | 1/10W |
| R021 | 1-216-057-00 | METAL CHIP | 2.2K | 5% | 1/10W |
| R022 | 1-216-057-00 | METAL CHIP | 2.2K | 5% | 1/10W |
| R023 | 1-216-059-00 | METAL CHIP | 2.7K | 5% | 1/10W |
| R024 | 1-216-063-00 | METAL CHIP | 3.9K | 5% | 1/10W |
| R031 | 1-216-117-00 | METAL CHIP | 680K | 5% | 1/10W |
| R032 | 1-216-700-11 | METAL CHIP | 470K | 1% | 1/10W |
| R033 | 1-216-022-00 | METAL CHIP | 75 | 5% | 1/10W |
| R034 | 1-216-039-00 | METAL CHIP | 390 | 5% | 1/10W |
| R035 | 1-216-049-00 | METAL CHIP | 1K | 5% | 1/10W |
| R036 | 1-216-653-11 | METAL CHIP | 1.2K | 0.5% | 1/10W |
| R037 | 1-216-661-11 | METAL CHIP | 2.7K | 0.5% | 1/10W |
| R039 | 1-215-401-11 | METAL | 150 | 1% | 1/6W |
| R040 | 1-216-061-00 | METAL CHIP | 3.3K | 5% | 1/10W |
| R041 | 1-216-295-00 | METAL CHIP | 0 | 5% | 1/10W |
| R042 | 1-216-073-00 | METAL CHIP | 10K | 5% | 1/10W |
| R043 | 1-216-097-00 | METAL CHIP | 100K | 5% | 1/10W |
| R051 | 1-216-043-00 | METAL CHIP | 560 | 5% | 1/10W |
| R052 | 1-216-078-00 | METAL GLAZE | 16K | 5% | 1/10W |
| R053 | 1-216-072-00 | METAL CHIP | 9.1K | 5% | 1/10W |
| R054 | 1-216-089-00 | METAL CHIP | 47K | 5% | 1/10W |
| R055 | 1-216-073-00 | METAL CHIP | 10K | 5% | 1/10W |

| Ref. No. | Part No. | Description | | | Remark |
|---|---|---|---|---|---|
| R056 | 1-216-065-00 | METAL CHIP | 4.7K | 5% | 1/10W |
| R057 | 1-216-073-00 | METAL CHIP | 10K | 5% | 1/10W |
| R058 | 1-216-059-00 | METAL CHIP | 2.7K | 5% | 1/10W |
| R059 | 1-216-045-00 | METAL CHIP | 680 | 5% | 1/10W |
| R060 | 1-216-057-00 | METAL CHIP | 2.2K | 5% | 1/10W |
| R062 | 1-216-677-11 | METAL CHIP | 12K | 0.5% | 1/10W |
| R063 | 1-216-061-00 | METAL CHIP | 3.3K | 5% | 1/10W |
| R064 | 1-216-061-00 | METAL CHIP | 3.3K | 5% | 1/10W |
| R065 | 1-216-059-00 | METAL CHIP | 2.7K | 5% | 1/10W |
| R066 | 1-216-060-00 | METAL GLAZE | 3K | 5% | 1/10W |
| R067 | 1-216-058-00 | METAL GLAZE | 2.4K | 5% | 1/10W |
| R068 | 1-216-748-11 | METAL CHIP | 39K | 5% | 1/10W |
| R069 | 1-216-077-00 | METAL CHIP | 15K | 5% | 1/10W |
| R070 | 1-216-065-00 | METAL CHIP | 4.7K | 5% | 1/10W |
| R071 | 1-216-057-00 | METAL CHIP | 2.2K | 5% | 1/10W |
| R072 | 1-216-057-00 | METAL CHIP | 2.2K | 5% | 1/10W |
| R073 | 1-216-059-00 | METAL CHIP | 2.7K | 5% | 1/10W |
| R074 | 1-216-063-00 | METAL CHIP | 3.9K | 5% | 1/10W |

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* A-7061-825-A PD-19 (P) BOARD, COMPLETE

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(Ref.No 7,000 Series)

< CAPACITOR >

| Ref. No. | Part No. | Description | | | Remark |
|---|---|---|---|---|---|
| C851 | 1-163-035-00 | CERAMIC CHIP | 0.047uF | | 50V |
| C852 | 1-163-035-00 | CERAMIC CHIP | 0.047uF | | 50V |
| C853 | 1-164-232-11 | CERAMIC CHIP | 0.01uF | | 50V |
| C854 | 1-163-235-11 | CERAMIC CHIP | 22PF | 5% | 50V |
| C856 | 1-135-156-21 | TANTALUM CHIP | 6.8uF | 10% | 6.3V |
| C857 | 1-163-035-00 | CERAMIC CHIP | 0.047uF | | 50V |
| C858 | 1-135-145-11 | TANTALUM CHIP | 0.47uF | 10% | 25V |
| C859 | 1-135-180-21 | TANTALUM CHIP | 3.3uF | 20% | 6.3V |
| C860 | 1-135-156-21 | TANTALUM CHIP | 6.8uF | 10% | 6.3V |
| C861 | 1-163-235-11 | CERAMIC CHIP | 22PF | 5% | 50V |
| C862 | 1-163-085-00 | CERAMIC CHIP | 2PF | | 50V |
| C863 | 1-163-035-00 | CERAMIC CHIP | 0.047uF | | 50V |
| C864 | 1-163-035-00 | CERAMIC CHIP | 0.047uF | | 50V |
| C867 | 1-163-035-00 | CERAMIC CHIP | 0.047uF | | 50V |
| C868 | 1-163-109-00 | CERAMIC CHIP | 47PF | 5% | 50V |
| C869 | 1-163-227-11 | CERAMIC CHIP | 10PF | 5% | 50V |
| C870 | 1-163-115-00 | CERAMIC CHIP | 82PF | 5% | 50V |
| C871 | 1-163-035-00 | CERAMIC CHIP | 0.047uF | | 50V |
| C872 | 1-135-156-21 | TANTALUM CHIP | 6.8uF | 10% | 6.3V |
| C873 | 1-135-157-21 | TANTALUM CHIP | 10uF | 20% | 6.3V |
| C874 | 1-163-035-00 | CERAMIC CHIP | 0.047uF | | 50V |
| C875 | 1-164-232-11 | CERAMIC CHIP | 0.01uF | | 50V |
| C876 | 1-163-005-11 | CERAMIC CHIP | 470PF | 10% | 50V |
| C877 | 1-163-035-00 | CERAMIC CHIP | 0.047uF | | 50V |
| C878 | 1-135-156-21 | TANTALUM CHIP | 6.8uF | 10% | 6.3V |
| C879 | 1-163-035-00 | CERAMIC CHIP | 0.047uF | | 50V |
| C880 | 1-135-156-21 | TANTALUM CHIP | 6.8uF | 10% | 6.3V |
| C881 | 1-163-035-00 | CERAMIC CHIP | 0.047uF | | 50V |
| C882 | 1-163-035-00 | CERAMIC CHIP | 0.047uF | | 50V |
| C884 | 1-163-035-00 | CERAMIC CHIP | 0.047uF | | 50V |
| C885 | 1-163-105-00 | CERAMIC CHIP | 33PF | 5% | 50V |
| C886 | 1-163-105-00 | CERAMIC CHIP | 33PF | 5% | 50V |
| C887 | 1-163-035-00 | CERAMIC CHIP | 0.047uF | | 50V |
| C888 | 1-163-035-00 | CERAMIC CHIP | 0.047uF | | 50V |
| C889 | 1-135-156-21 | TANTALUM CHIP | 6.8uF | 10% | 6.3V |

< CONNECTOR >

| | | | |
|---|---|---|---|
| CN851 | * | 1-565-107-21 | PIN. CONNECTOR (PC BOARD) 35P |
| CN852 | * | 1-565-107-21 | PIN. CONNECTOR (PC BOARD) 35P |
| CN853 | | 1-506-777-11 | CONNECTOR, BOARD TO BOARD 20P |

< DIODE >

| | | | |
|---|---|---|---|
| D851 | 8-719-104-34 | DIODE | 1S2835-T1 |
| D852 | 8-719-400-18 | DIODE | MA152WK |
| D853 | 8-719-400-18 | DIODE | MA152WK |

< IC >

| | | | |
|---|---|---|---|
| IC851 | 8-752-324-45 | IC | CXD1066Q-Z |
| IC852 | 8-759-929-17 | IC | CXD1051M-T1 |
| IC853 | 8-752-010-30 | IC | CX20103-T1 |
| IC854 | 8-752-010-20 | IC | CX20102-T1 |
| IC855 | 8-752-331-00 | IC | CXK5864BM-12L-T6 |
| IC856 | 8-759-948-61 | IC | CX23011-T1-C |
| IC857 | 8-759-911-19 | IC | CX23012-T1 |
| IC858 | 8-759-972-12 | IC | CF77305FT |
| IC859 | 8-752-809-68 | IC | CXP5024H-079Q |
| IC860 | 8-759-972-13 | IC | CF77309FR |

< COIL >

| | | | |
|---|---|---|---|
| L851 | 1-410-393-11 | INDUCTOR CHIP | 100uH |
| L852 | 1-410-393-11 | INDUCTOR CHIP | 100uH |
| L853 | 1-410-393-11 | INDUCTOR CHIP | 100uH |
| L855 | 1-410-393-11 | INDUCTOR CHIP | 100uH |
| L856 | 1-410-393-11 | INDUCTOR CHIP | 100uH |
| L857 | 1-410-393-11 | INDUCTOR CHIP | 100uH |
| L858 | 1-410-393-11 | INDUCTOR CHIP | 100uH |
| L859 | 1-410-393-11 | INDUCTOR CHIP | 100uH |
| L860 | 1-410-393-11 | INDUCTOR CHIP | 100uH |
| L861 | 1-410-393-11 | INDUCTOR CHIP | 100uH |
| L862 | 1-410-393-11 | INDUCTOR CHIP | 100uH |

< TRANSISTOR >

| | | | |
|---|---|---|---|
| Q851 | 8-729-102-06 | TRANSISTOR | 2SC2223 |
| Q852 | 8-729-122-63 | TRANSISTOR | 2SA1226 |

## PD-19 (P) PM-11 (P)

| Ref. No. | Part No. | Description | Remark |
|---|---|---|---|
| Q853 | 8-729-102-06 | TRANSISTOR 2SC2223 | |
| | | < RESISTOR > | |
| R851 | 1-216-073-00 | METAL CHIP 10K 5% 1/10W | |
| R852 | 1-216-085-00 | METAL CHIP 33K 5% 1/10W | |
| R853 | 1-216-033-00 | METAL CHIP 220 5% 1/10W | |
| R854 | 1-216-061-00 | METAL CHIP 3.3K 5% 1/10W | |
| R855 | 1-216-081-00 | METAL CHIP 22K 5% 1/10W | |
| R856 | 1-216-079-00 | METAL CHIP 18K 5% 1/10W | |
| R857 | 1-216-077-00 | METAL CHIP 15K 5% 1/10W | |
| R858 | 1-216-077-00 | METAL CHIP 15K 5% 1/10W | |
| R859 | 1-216-049-00 | METAL CHIP 1K 5% 1/10W | |
| R860 | 1-216-071-00 | METAL CHIP 8.2K 5% 1/10W | |
| R861 | 1-216-065-00 | METAL CHIP 4.7K 5% 1/10W | |
| R862 | 1-216-025-00 | METAL CHIP 100 5% 1/10W | |
| R863 | 1-216-041-00 | METAL CHIP 470 5% 1/10W | |
| R864 | 1-216-049-00 | METAL CHIP 1K 5% 1/10W | |
| R866 | 1-216-041-00 | METAL CHIP 470 5% 1/10W | |
| R867 | 1-216-295-00 | METAL CHIP 0 5% 1/10W | |
| R868 | 1-216-295-00 | METAL CHIP 0 5% 1/10W | |
| R869 | 1-216-061-00 | METAL CHIP 3.3K 5% 1/10W | |
| R870 | 1-216-049-00 | METAL CHIP 1K 5% 1/10W | |
| R871 | 1-216-049-00 | METAL CHIP 1K 5% 1/10W | |
| R872 | 1-216-049-00 | METAL CHIP 1K 5% 1/10W | |
| R873 | 1-216-041-00 | METAL CHIP 470 5% 1/10W | |
| R874 | 1-216-053-00 | METAL CHIP 1.5K 5% 1/10W | |
| R875 | 1-216-295-00 | METAL CHIP 0 5% 1/10W | |
| R876 | 1-216-045-00 | METAL CHIP 680 5% 1/10W | |
| R879 | 1-216-051-00 | METAL CHIP 1.2K 5% 1/10W | |
| R880 | 1-216-071-00 | METAL CHIP 8.2K 5% 1/10W | |
| R881 | 1-216-051-00 | METAL CHIP 1.2K 5% 1/10W | |
| R882 | 1-216-043-00 | METAL CHIP 560 5% 1/10W | |
| R883 | 1-216-073-00 | METAL CHIP 10K 5% 1/10W | |
| R884 | 1-216-073-00 | METAL CHIP 10K 5% 1/10W | |
| R886 | 1-216-073-00 | METAL CHIP 10K 5% 1/10W | |
| R887 | 1-216-065-00 | METAL CHIP 4.7K 5% 1/10W | |
| R888 | 1-216-065-00 | METAL CHIP 4.7K 5% 1/10W | |
| R889 | 1-216-073-00 | METAL CHIP 10K 5% 1/10W | |
| R890 | 1-216-085-00 | METAL CHIP 33K 5% 1/10W | |
| R891 | 1-216-295-00 | METAL CHIP 0 5% 1/10W | |
| | | < VARIABLE RESISTOR > | |
| RV851 | 1-230-869-11 | RES, ADJ, METAL 4.7K | |
| RV854 | 1-230-868-11 | RES, ADJ, METAL 2.2K | |
| | | < VIBRATOR > | |
| X851 | 1-567-669-91 | VIBRATOR, LITHIUM TANTALATE | |
| X852 | 1-567-346-11 | OSCILLATOR, CERAMIC (5MHz) | |

| Ref. No. | Part No. | Description | Remark |
|---|---|---|---|
| | * A-7062-846-A | PM-11 (P) BOARD, COMPLETE<br>************************<br>(Ref. No 16,000 Series) | |
| | * 3-747-038-01 | LID, BOTTOM, PM SHIELD CASE (L) | |
| | | < CAPACITOR > | |
| C101 | 1-163-038-00 | CERAMIC CHIP 0.1uF 25V | |
| C102 | 1-163-038-00 | CERAMIC CHIP 0.1uF 25V | |
| C103 | 1-126-177-11 | ELECT 100uF 20% 10V | |
| C104 | 1-163-038-00 | CERAMIC CHIP 0.1uF 25V | |
| C105 | 1-126-154-11 | ELECT 47uF 20% 6.3V | |
| C107 | 1-126-301-11 | ELECT 1uF 20% 50V | |
| C108 | 1-163-117-00 | CERAMIC CHIP 100PF 5% 50V | |
| C109 | 1-163-127-00 | CERAMIC CHIP 270PF 5% 50V | |
| C110 | 1-126-301-11 | ELECT 1uF 20% 50V | |
| C111 | 1-163-117-00 | CERAMIC CHIP 100PF 5% 50V | |
| C112 | 1-163-127-00 | CERAMIC CHIP 270PF 5% 50V | |
| C113 | 1-164-232-11 | CERAMIC CHIP 0.01uF 50V | |
| C114 | 1-164-232-11 | CERAMIC CHIP 0.01uF 50V | |
| C115 | 1-126-599-11 | ELECT 330uF 20% 6.3V | |
| C116 | 1-163-038-00 | CERAMIC CHIP 0.1uF 25V | |
| C117 | 1-163-121-00 | CERAMIC CHIP 150PF 5% 50V | |
| C118 | 1-163-038-00 | CERAMIC CHIP 0.1uF 25V | |
| C119 | 1-163-023-00 | CERAMIC CHIP 0.015uF 5% 50V | |
| C120 | 1-163-023-00 | CERAMIC CHIP 0.015uF 5% 50V | |
| C121 | 1-164-232-11 | CERAMIC CHIP 0.01uF 50V | |
| C122 | 1-124-465-00 | ELECT 0.47uF 20% 50V | |
| C123 | 1-164-232-11 | CERAMIC CHIP 0.01uF 50V | |
| C124 | 1-126-301-11 | ELECT 1uF 20% 50V | |
| C125 | 1-164-232-11 | CERAMIC CHIP 0.01uF 50V | |
| C126 | 1-124-463-00 | ELECT 0.1uF 20% 50V | |
| C127 | 1-126-301-11 | ELECT 1uF 20% 50V | |
| C128 | 1-126-301-11 | ELECT 1uF 20% 50V | |
| C129 | 1-163-133-00 | CERAMIC CHIP 470PF 5% 50V | |
| C130 | 1-163-145-00 | CERAMIC CHIP 0.0015uF 5% 50V | |
| C131 | 1-126-301-11 | ELECT 1uF 20% 50V | |
| C132 | 1-164-633-11 | CERAMIC CHIP 0.1uF 10% 25V | |
| C134 | 1-163-127-00 | CERAMIC CHIP 270PF 5% 50V | |
| C135 | 1-164-232-11 | CERAMIC CHIP 0.01uF 50V | |
| C136 | 1-163-086-00 | CERAMIC CHIP 3PF 50V | |
| C137 | 1-164-232-11 | CERAMIC CHIP 0.01uF 50V | |
| C138 | 1-124-257-00 | ELECT 2.2uF 20% 50V | |
| C139 | 1-126-301-11 | ELECT 1uF 20% 50V | |
| C140 | 1-126-301-11 | ELECT 1uF 20% 50V | |
| C141 | 1-126-301-11 | ELECT 1uF 20% 50V | |
| C142 | 1-163-038-00 | CERAMIC CHIP 0.1uF 25V | |
| C143 | 1-126-301-11 | ELECT 1uF 20% 50V | |
| C144 | 1-163-038-00 | CERAMIC CHIP 0.1uF 25V | |

| Ref. No. | Part No. | Description | | | Remark |
|---|---|---|---|---|---|
| C145 | 1-126-177-11 | ELECT | 100uF | 20% | 10V |
| C146 | 1-163-038-00 | CERAMIC CHIP | 0.1uF | | 25V |
| C147 | 1-126-177-11 | ELECT | 100uF | 20% | 10V |
| C148 | 1-126-177-11 | ELECT | 100uF | 20% | 10V |
| C149 | 1-163-038-00 | CERAMIC CHIP | 0.1uF | | 25V |
| C150 | 1-163-038-00 | CERAMIC CHIP | 0.1uF | | 25V |
| C151 | 1-126-177-11 | ELECT | 100uF | 20% | 10V |
| C152 | 1-163-093-00 | CERAMIC CHIP | 10PF | 5% | 50V |
| C153 | 1-163-107-00 | CERAMIC CHIP | 39PF | 5% | 50V |
| C154 | 1-163-088-00 | CERAMIC CHIP | 5PF | | 50V |
| C155 | 1-163-088-00 | CERAMIC CHIP | 5PF | | 50V |
| C156 | 1-163-038-00 | CERAMIC CHIP | 0.1uF | | 25V |
| C157 | 1-126-177-11 | ELECT | 100uF | 20% | 10V |
| C158 | 1-163-038-00 | CERAMIC CHIP | 0.1uF | | 25V |
| C159 | 1-126-177-11 | ELECT | 100uF | 20% | 10V |
| C160 | 1-126-177-11 | ELECT | 100uF | 20% | 10V |
| C161 | 1-163-038-00 | CERAMIC CHIP | 0.1uF | | 25V |
| C162 | 1-126-301-11 | ELECT | 1uF | 20% | 50V |
| C163 | 1-126-301-11 | ELECT | 1uF | 20% | 50V |
| C164 | 1-126-301-11 | ELECT | 1uF | 20% | 50V |
| C165 | 1-126-301-11 | ELECT | 1uF | 20% | 50V |
| C166 | 1-126-301-11 | ELECT | 1uF | 20% | 50V |
| C167 | 1-124-463-00 | ELECT | 0.1uF | 20% | 50V |
| C168 | 1-163-038-00 | CERAMIC CHIP | 0.1uF | | 25V |
| C169 | 1-163-038-00 | CERAMIC CHIP | 0.1uF | | 25V |
| C170 | 1-126-177-11 | ELECT | 100uF | 20% | 10V |
| C171 | 1-126-301-11 | ELECT | 1uF | 20% | 50V |
| C172 | 1-164-232-11 | CERAMIC CHIP | 0.01uF | | 50V |
| C173 | 1-126-301-11 | ELECT | 1uF | 20% | 50V |
| C174 | 1-124-465-00 | ELECT | 0.47uF | 20% | 50V |
| C176 | 1-163-809-11 | CERAMIC CHIP | 0.047uF | 10% | 25V |
| C177 | 1-163-809-11 | CERAMIC CHIP | 0.047uF | 10% | 25V |
| C178 | 1-163-009-11 | CERAMIC CHIP | 0.001uF | 10% | 50V |
| C179 | 1-164-232-11 | CERAMIC CHIP | 0.01uF | | 50V |
| C180 | 1-163-141-00 | CERAMIC CHIP | 0.001uF | 5% | 50V |
| C181 | 1-164-232-11 | CERAMIC CHIP | 0.01uF | | 50V |
| C182 | 1-164-232-11 | CERAMIC CHIP | 0.01uF | | 50V |
| C183 | 1-126-301-11 | ELECT | 1uF | 20% | 50V |
| C184 | 1-163-038-00 | CERAMIC CHIP | 0.1uF | | 25V |
| C185 | 1-126-177-11 | ELECT | 100uF | 20% | 10V |
| C186 | 1-164-232-11 | CERAMIC CHIP | 0.01uF | | 50V |
| C187 | 1-126-301-11 | ELECT | 1uF | 20% | 50V |
| C188 | 1-163-135-00 | CERAMIC CHIP | 560PF | 5% | 50V |
| C189 | 1-163-097-00 | CERAMIC CHIP | 15PF | 5% | 50V |
| C190 | 1-164-232-11 | CERAMIC CHIP | 0.01uF | | 50V |
| C191 | 1-163-009-11 | CERAMIC CHIP | 0.001uF | 10% | 50V |
| C192 | 1-163-125-00 | CERAMIC CHIP | 220PF | 5% | 50V |
| C193 | 1-163-117-00 | CERAMIC CHIP | 100PF | 5% | 50V |

| Ref. No. | Part No. | Description | | | Remark |
|---|---|---|---|---|---|
| C194 | 1-163-125-00 | CERAMIC CHIP | 220PF | 5% | 50V |
| C195 | 1-163-117-00 | CERAMIC CHIP | 100PF | 5% | 50V |
| C196 | 1-163-038-00 | CERAMIC CHIP | 0.1uF | | 25V |
| C197 | 1-126-177-11 | ELECT | 100uF | 20% | 10V |
| C198 | 1-163-137-00 | CERAMIC CHIP | 680PF | 5% | 50V |
| C199 | 1-163-097-00 | CERAMIC CHIP | 15PF | 5% | 50V |
| C200 | 1-163-129-00 | CERAMIC CHIP | 330PF | 5% | 50V |
| C201 | 1-124-465-00 | ELECT | 0.47uF | 20% | 50V |
| C202 | 1-163-137-00 | CERAMIC CHIP | 680PF | 5% | 50V |
| C203 | 1-163-145-00 | CERAMIC CHIP | 0.0015uF | 5% | 50V |
| C204 | 1-163-103-00 | CERAMIC CHIP | 27PF | 5% | 50V |
| C205 | 1-163-038-00 | CERAMIC CHIP | 0.1uF | | 25V |
| C206 | 1-126-599-11 | ELECT | 330uF | 20% | 6.3V |
| C207 | 1-126-301-11 | ELECT | 1uF | 20% | 50V |
| C208 | 1-164-633-11 | CERAMIC CHIP | 0.1uF | 10% | 25V |
| C209 | 1-163-141-00 | CERAMIC CHIP | 0.001uF | 5% | 50V |
| C210 | 1-163-141-00 | CERAMIC CHIP | 0.001uF | 5% | 50V |
| C211 | 1-163-141-00 | CERAMIC CHIP | 0.001uF | 5% | 50V |
| C212 | 1-126-162-11 | ELECT | 3.3uF | 20% | 50V |
| C213 | 1-126-177-11 | ELECT | 100uF | 20% | 10V |
| C214 | 1-163-038-00 | CERAMIC CHIP | 0.1uF | | 25V |
| C215 | 1-164-232-11 | CERAMIC CHIP | 0.01uF | | 50V |
| C216 | 1-164-232-11 | CERAMIC CHIP | 0.01uF | | 50V |
| C217 | 1-164-232-11 | CERAMIC CHIP | 0.01uF | | 50V |
| C218 | 1-126-177-11 | ELECT | 100uF | 20% | 10V |
| C219 | 1-163-038-00 | CERAMIC CHIP | 0.1uF | | 25V |
| C220 | 1-164-232-11 | CERAMIC CHIP | 0.01uF | | 50V |
| C221 | 1-126-157-11 | ELECT | 10uF | 20% | 16V |
| C223 | 1-126-154-11 | ELECT | 47uF | 20% | 6.3V |
| C224 | 1-163-038-00 | CERAMIC CHIP | 0.1uF | | 25V |
| C231 | 1-126-154-11 | ELECT | 47uF | 20% | 6.3V |
| C232 | 1-126-157-11 | ELECT | 10uF | 20% | 16V |
| C233 | 1-163-121-00 | CERAMIC CHIP | 150PF | 5% | 50V |

< CONNECTOR >

| Ref. No. | Part No. | Description |
|---|---|---|
| CN101 | 1-506-471-11 | CONNECTOR 6P, MALE |
| CN102 | 1-506-469-11 | CONNECTOR 4P, MALE |
| CN103 | 1-506-469-11 | CONNECTOR 4P, MALE |

< TRIMMER >

| Ref. No. | Part No. | Description |
|---|---|---|
| CV101 | 1-141-368-11 | CAP, CHIP TRIMMER |
| CV102 | 1-141-370-11 | CAP, CHIP TRIMMER |
| CV103 | 1-141-368-11 | CAP, CHIP TRIMMER |

< DIODE >

| Ref. No. | Part No. | Description |
|---|---|---|
| D101 | 8-719-400-18 | DIODE MA152WK |

# PM-11 (P)

| Ref. No. | Part No. | Description | Remark |
|---|---|---|---|
|  |  | < DELAY LINE > |  |
| DL101 | 1-415-440-11 | DELAY LINE, LC (444NS) |  |
|  |  | < FERRITE BEAD > |  |
| FB101 | 1-543-309-21 | BEAD, FERRITE |  |
| FB102 | 1-543-309-21 | BEAD, FERRITE |  |
|  |  | < FILTER > |  |
| FL101 | 1-421-927-21 | FILTER, NOISE |  |
| FL102 | 1-421-927-21 | FILTER, NOISE |  |
| FL103 | 1-421-927-21 | FILTER, NOISE |  |
| FL104 | 1-421-927-21 | FILTER, NOISE |  |
| FL105 | 1-421-927-21 | FILTER, NOISE |  |
| FL106 | 1-421-928-11 | FILTER, NOISE |  |
| FL107 | 1-421-928-11 | FILTER, NOISE |  |
| FL108 | 1-421-928-11 | FILTER, NOISE |  |
| FL112 | 1-236-054-11 | FILTER, LC (LOW PASS) |  |
| FL113 | 1-236-360-11 | BPF, C |  |
| FL114 | 1-236-360-11 | BPF, C |  |
| FL115 | 1-421-927-21 | FILTER, NOISE |  |
| FL116 | 1-421-927-21 | FILTER, NOISE |  |
| FL117 | 1-421-927-21 | FILTER, NOISE |  |
| FL118 | 1-421-927-21 | FILTER, NOISE |  |
| FL119 | 1-421-927-21 | FILTER, NOISE |  |
| FL120 | 1-236-360-11 | BPF, C |  |
|  |  | < IC > |  |
| IC101 | 8-759-633-99 | IC M51285BFP-V |  |
| IC102 | 8-759-631-06 | IC M50541FP |  |
| IC103 | 8-759-633-96 | IC M52682FP |  |
| IC104 | 8-759-032-41 | IC MC74HC157AF |  |
| IC104 | 8-759-926-18 | IC SN74HC157ANS |  |
| IC105 | 8-759-925-72 | IC SN74HC02ANS |  |
| IC106 | 8-759-031-58 | IC SC7SU04F |  |
| IC107 | 8-759-605-15 | IC M5M4C500L |  |
| IC108 | 8-759-633-04 | IC M52686AFP |  |
| IC109 | 8-759-941-68 | IC BA7131F |  |
| IC110 | 8-759-603-54 | IC M51271FP |  |
| IC111 | 8-759-631-10 | IC M52684AFP |  |
| IC112 | 8-759-300-71 | IC TC4053BF |  |
| IC113 | 8-759-710-12 | IC NJM2230M |  |
|  |  | < COIL > |  |
| L103 | 1-407-169-XX | INDUCTOR 100uH |  |
| L104 | 1-407-169-XX | INDUCTOR 100uH |  |
| L105 | 1-407-169-XX | INDUCTOR 100uH |  |
| L106 | 1-407-169-XX | INDUCTOR 100uH |  |
| L107 | 1-410-389-31 | INDUCTOR CHIP 47uH |  |
| L108 | 1-407-169-XX | INDUCTOR 100uH |  |
| L109 | 1-407-169-XX | INDUCTOR 100uH |  |
| L110 | 1-407-169-XX | INDUCTOR 100uH |  |
| L111 | 1-407-169-XX | INDUCTOR 100uH |  |
| L112 | 1-407-169-XX | INDUCTOR 100uH |  |
|  |  | < TRANSISTOR > |  |
| Q101 | 8-729-230-49 | TRANSISTOR 2SC2712 |  |
| Q102 | 8-729-230-49 | TRANSISTOR 2SC2712 |  |
| Q103 | 8-729-230-49 | TRANSISTOR 2SC2712 |  |
| Q104 | 8-729-216-22 | TRANSISTOR 2SA1162 |  |
| Q105 | 8-729-230-49 | TRANSISTOR 2SC2712 |  |
| Q106 | 8-729-216-22 | TRANSISTOR 2SA1162 |  |
| Q107 | 8-729-216-22 | TRANSISTOR 2SA1162 |  |
| Q108 | 8-729-216-22 | TRANSISTOR 2SA1162 |  |
| Q109 | 8-729-230-49 | TRANSISTOR 2SC2712 |  |
| Q111 | 8-729-230-49 | TRANSISTOR 2SC2712 |  |
| Q112 | 8-729-216-22 | TRANSISTOR 2SA1162 |  |
|  |  | < RESISTOR > |  |
| R101 | 1-216-049-00 | METAL CHIP 1K 5% 1/10W |  |
| R102 | 1-216-055-00 | METAL CHIP 1.8K 5% 1/10W |  |
| R103 | 1-216-057-00 | METAL CHIP 2.2K 5% 1/10W |  |
| R104 | 1-216-049-00 | METAL CHIP 1K 5% 1/10W |  |
| R105 | 1-216-049-00 | METAL CHIP 1K 5% 1/10W |  |
| R106 | 1-216-049-00 | METAL CHIP 1K 5% 1/10W |  |
| R107 | 1-216-049-00 | METAL CHIP 1K 5% 1/10W |  |
| R108 | 1-216-049-00 | METAL CHIP 1K 5% 1/10W |  |
| R109 | 1-216-049-00 | METAL CHIP 1K 5% 1/10W |  |
| R110 | 1-216-049-00 | METAL CHIP 1K 5% 1/10W |  |
| R111 | 1-216-051-00 | METAL CHIP 1.2K 5% 1/10W |  |
| R112 | 1-216-065-00 | METAL CHIP 4.7K 5% 1/10W |  |
| R113 | 1-216-065-00 | METAL CHIP 4.7K 5% 1/10W |  |
| R114 | 1-216-041-00 | METAL CHIP 470 5% 1/10W |  |
| R115 | 1-216-041-00 | METAL CHIP 470 5% 1/10W |  |
| R116 | 1-216-081-00 | METAL CHIP 22K 5% 1/10W |  |
| R117 | 1-216-081-00 | METAL CHIP 22K 5% 1/10W |  |
| R118 | 1-216-121-00 | METAL CHIP 1M 5% 1/10W |  |
| R119 | 1-216-051-00 | METAL CHIP 1.2K 5% 1/10W |  |
| R120 | 1-216-748-11 | METAL CHIP 39K 1% 1/10W |  |
| R121 | 1-216-077-00 | METAL CHIP 15K 5% 1/10W |  |
| R122 | 1-216-041-00 | METAL CHIP 470 5% 1/10W |  |
| R123 | 1-216-025-00 | METAL CHIP 100 5% 1/10W |  |
| R124 | 1-216-093-00 | METAL CHIP 68K 5% 1/10W |  |
| R125 | 1-216-057-00 | METAL CHIP 2.2K 5% 1/10W |  |
| R126 | 1-216-057-00 | METAL CHIP 2.2K 5% 1/10W |  |
| R127 | 1-216-035-00 | METAL CHIP 270 5% 1/10W |  |
| R128 | 1-216-073-00 | METAL CHIP 10K 5% 1/10W |  |
| R129 | 1-216-053-00 | METAL CHIP 1.5K 5% 1/10W |  |

| Ref. No. | Part No. | Description | | | | Remark |
|---|---|---|---|---|---|---|
| R131 | 1-216-097-00 | METAL CHIP | 100K | 5% | 1/10W | |
| R132 | 1-216-034-00 | METAL CHIP | 240 | 5% | 1/10W | |
| R133 | 1-216-018-00 | METAL CHIP | 51 | 5% | 1/10W | |
| R134 | 1-216-049-00 | METAL CHIP | 1K | 5% | 1/10W | |
| R135 | 1-216-053-00 | METAL CHIP | 1.5K | 5% | 1/10W | |
| R136 | 1-216-073-00 | METAL CHIP | 10K | 5% | 1/10W | |
| R137 | 1-216-065-00 | METAL CHIP | 4.7K | 5% | 1/10W | |
| R138 | 1-216-295-00 | METAL CHIP | 0 | 5% | 1/10W | |
| R139 | 1-216-097-00 | METAL CHIP | 100K | 5% | 1/10W | |
| R140 | 1-216-071-00 | METAL CHIP | 8.2K | 5% | 1/10W | |
| R141 | 1-216-041-00 | METAL CHIP | 470 | 5% | 1/10W | |
| R142 | 1-216-121-00 | METAL CHIP | 1M | 5% | 1/10W | |
| R143 | 1-216-097-00 | METAL CHIP | 100K | 5% | 1/10W | |
| R145 | 1-216-095-00 | METAL CHIP | 82K | 5% | 1/10W | |
| R146 | 1-216-057-00 | METAL CHIP | 2.2K | 5% | 1/10W | |
| R147 | 1-216-748-11 | METAL CHIP | 39K | 1% | 1/10W | |
| R149 | 1-216-295-00 | METAL CHIP | 0 | 5% | 1/10W | |
| R150 | 1-216-295-00 | METAL CHIP | 0 | 5% | 1/10W | |
| R151 | 1-216-051-00 | METAL CHIP | 1.2K | 5% | 1/10W | |
| R152 | 1-216-047-00 | METAL CHIP | 820 | 5% | 1/10W | |
| R153 | 1-216-051-00 | METAL CHIP | 1.2K | 5% | 1/10W | |
| R154 | 1-216-119-00 | METAL CHIP | 820K | 5% | 1/10W | |
| R155 | 1-216-077-00 | METAL CHIP | 15K | 5% | 1/10W | |
| R156 | 1-216-089-00 | METAL CHIP | 47K | 5% | 1/10W | |
| R157 | 1-216-077-00 | METAL CHIP | 15K | 5% | 1/10W | |
| R158 | 1-216-085-00 | METAL CHIP | 33K | 5% | 1/10W | |
| R159 | 1-216-085-00 | METAL CHIP | 33K | 5% | 1/10W | |
| R160 | 1-216-113-00 | METAL CHIP | 470K | 5% | 1/10W | |
| R161 | 1-216-053-00 | METAL CHIP | 1.5K | 5% | 1/10W | |
| R162 | 1-216-021-00 | METAL CHIP | 68 | 5% | 1/10W | |
| R163 | 1-216-025-00 | METAL CHIP | 100 | 5% | 1/10W | |
| R164 | 1-216-055-00 | METAL CHIP | 1.8K | 5% | 1/10W | |
| R165 | 1-216-055-00 | METAL CHIP | 1.8K | 5% | 1/10W | |
| R166 | 1-216-041-00 | METAL CHIP | 470 | 5% | 1/10W | |
| R167 | 1-216-041-00 | METAL CHIP | 470 | 5% | 1/10W | |
| R168 | 1-216-055-00 | METAL CHIP | 1.8K | 5% | 1/10W | |
| R169 | 1-216-055-00 | METAL CHIP | 1.8K | 5% | 1/10W | |
| R170 | 1-216-041-00 | METAL CHIP | 470 | 5% | 1/10W | |
| R171 | 1-216-041-00 | METAL CHIP | 470 | 5% | 1/10W | |
| R172 | 1-216-049-00 | METAL CHIP | 1K | 5% | 1/10W | |
| R173 | 1-216-049-00 | METAL CHIP | 1K | 5% | 1/10W | |
| R174 | 1-216-049-00 | METAL CHIP | 1K | 5% | 1/10W | |
| R175 | 1-216-049-00 | METAL CHIP | 1K | 5% | 1/10W | |
| R176 | 1-216-101-00 | METAL CHIP | 150K | 5% | 1/10W | |
| R177 | 1-216-041-00 | METAL CHIP | 470 | 5% | 1/10W | |
| R178 | 1-216-073-00 | METAL CHIP | 10K | 5% | 1/10W | |
| R179 | 1-216-035-00 | METAL CHIP | 270 | 5% | 1/10W | |
| R180 | 1-216-053-00 | METAL CHIP | 1.5K | 5% | 1/10W | |
| R182 | 1-216-097-00 | METAL CHIP | 100K | 5% | 1/10W | |

| Ref. No. | Part No. | Description | | | | Remark |
|---|---|---|---|---|---|---|
| R183 | 1-216-065-00 | METAL CHIP | 4.7K | 5% | 1/10W | |
| R184 | 1-216-049-00 | METAL CHIP | 1K | 5% | 1/10W | |
| R185 | 1-216-085-00 | METAL CHIP | 33K | 5% | 1/10W | |
| R186 | 1-216-109-00 | METAL CHIP | 330K | 5% | 1/10W | |
| R187 | 1-216-041-00 | METAL CHIP | 470 | 5% | 1/10W | |
| R188 | 1-216-057-00 | METAL CHIP | 2.2K | 5% | 1/10W | |
| R189 | 1-216-295-00 | METAL CHIP | 0 | 5% | 1/10W | |
| R190 | 1-216-295-00 | METAL CHIP | 0 | 5% | 1/10W | |
| R191 | 1-216-295-00 | METAL CHIP | 0 | 5% | 1/10W | |
| R192 | 1-216-295-00 | METAL CHIP | 0 | 5% | 1/10W | |
| R193 | 1-216-097-00 | METAL CHIP | 100K | 5% | 1/10W | |
| R194 | 1-216-097-00 | METAL CHIP | 100K | 5% | 1/10W | |
| R195 | 1-216-073-00 | METAL CHIP | 10K | 5% | 1/10W | |
| R213 | 1-216-089-00 | METAL CHIP | 47K | 5% | 1/10W | |
| R214 | 1-216-089-00 | METAL CHIP | 47K | 5% | 1/10W | |
| R215 | 1-216-089-00 | METAL CHIP | 47K | 5% | 1/10W | |
| R216 | 1-216-073-00 | METAL CHIP | 10K | 5% | 1/10W | |
| R217 | 1-216-073-00 | METAL CHIP | 10K | 5% | 1/10W | |

< VARIABLE RESISTOR >

| | | |
|---|---|---|
| RV101 | 1-230-520-11 | RES, ADJ, METAL 1K |
| RV102 | 1-230-521-11 | RES, ADJ, METAL 2.2K |
| RV103 | 1-230-526-11 | RES, ADJ, METAL 47K |

< VIBLATOR >

| | | |
|---|---|---|
| X101 | 1-577-165-11 | VIBLATOR, CERAMIC (500KHz) |
| X102 | 1-567-733-11 | VIBRATOR, CRYSTAL |
| X103 | 1-577-164-11 | VIBLATOR, CERAMIC (30.2MHz) |
| X104 | 1-567-733-11 | VIBRATOR, CRYSTAL |
| X105 | 1-577-165-11 | VIBLATOR, CERAMIC (500KHz) |

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* 1-635-325-11 RL-23 BOARD (Ref. No 12,000 Series)
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* 3-747-016-01 HOLDER, VOLUME

< CAPACITOR >

| | | | | | |
|---|---|---|---|---|---|
| C701 | 1-126-217-11 | ELECT CHIP | 15uF | 20% | 10V |
| C702 | 1-126-217-11 | ELECT CHIP | 15uF | 20% | 10V |

< IC >

| | | |
|---|---|---|
| IC701 | 8-759-700-62 | IC NJM4562D |

< RESISTOR >

| | | | | | |
|---|---|---|---|---|---|
| R701 | 1-216-082-00 | METAL GLAZE | 24K | 5% | 1/10W |
| R702 | 1-216-082-00 | METAL GLAZE | 24K | 5% | 1/10W |

< VARIABLE RESISTOR >

| Ref. No. | Part No. | Description | Remark |
|---|---|---|---|
| RV701 | 1-241-210-11 | RES, VAR, CARBON 100K (STD) | |
| RV702 | 1-241-211-11 | RES, VAR, CARBON 100K/100K (PCM R/L) | |

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* A-7061-827-A RP-73 BOARD, COMPLETE

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(Ref.No 2,000 Series)

< CAPACITOR >

| Ref. No. | Part No. | Description | | | Remark |
|---|---|---|---|---|---|
| C001 | 1-162-974-11 | CERAMIC CHIP | 0.01uF | | 50V |
| C002 | 1-164-232-11 | CERAMIC CHIP | 0.01uF | | 50V |
| C003 | 1-163-809-11 | CERAMIC CHIP | 0.047uF | 10% | 25V |
| C005 | 1-164-330-21 | CERAMIC CHIP | 0.22uF | 10% | 16V |
| C006 | 1-135-161-21 | TANTALUM CHIP | 22uF | 10% | 6.3V |
| C007 | 1-163-077-00 | CERAMIC CHIP | 0.1uF | 10% | 25V |
| C008 | 1-163-035-00 | CERAMIC CHIP | 0.047uF | | 50V |
| C009 | 1-135-161-21 | TANTALUM CHIP | 22uF | 10% | 6.3V |
| C010 | 1-163-077-00 | CERAMIC CHIP | 0.1uF | 10% | 25V |
| C011 | 1-164-232-11 | CERAMIC CHIP | 0.01uF | | 50V |
| C012 | 1-164-330-21 | CERAMIC CHIP | 0.22uF | 10% | 16V |
| C013 | 1-163-809-11 | CERAMIC CHIP | 0.047uF | 10% | 25V |
| C015 | 1-162-974-11 | CERAMIC CHIP | 0.01uF | | 50V |
| C016 | 1-164-232-11 | CERAMIC CHIP | 0.01uF | | 50V |
| C017 | 1-164-232-11 | CERAMIC CHIP | 0.01uF | | 50V |
| C020 | 1-164-232-11 | CERAMIC CHIP | 0.01uF | | 50V |
| C021 | 1-162-974-11 | CERAMIC CHIP | 0.01uF | | 50V |
| C022 | 1-135-091-00 | TANTALUM CHIP | 1uF | 20% | 16V |
| C023 | 1-135-157-21 | TANTALUM CHIP | 10uF | 20% | 6.3V |
| C024 | 1-164-232-11 | CERAMIC CHIP | 0.01uF | | 50V |
| C025 | 1-164-232-11 | CERAMIC CHIP | 0.01uF | | 50V |
| C027 | 1-135-091-00 | TANTALUM CHIP | 1uF | 20% | 16V |
| C028 | 1-163-809-11 | CERAMIC CHIP | 0.047uF | 10% | 25V |
| C029 | 1-163-809-11 | CERAMIC CHIP | 0.047uF | 10% | 25V |
| C030 | 1-162-974-11 | CERAMIC CHIP | 0.01uF | | 50V |
| C031 | 1-164-218-11 | CERAMIC CHIP | 180PF | 0.25PF | 50V |
| C032 | 1-162-918-11 | CERAMIC CHIP | 18PF | 5% | 50V |
| C033 | 1-163-809-11 | CERAMIC CHIP | 0.047uF | 10% | 25V |
| C034 | 1-162-912-11 | CERAMIC CHIP | 7PF | 0.5PF | 50V |
| C035 | 1-162-974-11 | CERAMIC CHIP | 0.01uF | | 50V |
| C036 | 1-164-218-11 | CERAMIC CHIP | 180PF | 0.25PF | 50V |
| C037 | 1-162-918-11 | CERAMIC CHIP | 18PF | 5% | 50V |
| C038 | 1-163-809-11 | CERAMIC CHIP | 0.047uF | 10% | 25V |
| C039 | 1-162-912-11 | CERAMIC CHIP | 7PF | 0.5PF | 50V |
| C040 | 1-162-913-11 | CERAMIC CHIP | 8PF | 0.5PF | 50V |
| C041 | 1-162-913-11 | CERAMIC CHIP | 8PF | 0.5PF | 50V |
| C042 | 1-135-157-21 | TANTALUM CHIP | 10uF | 20% | 6.3V |
| C043 | 1-135-157-21 | TANTALUM CHIP | 10uF | 20% | 6.3V |
| C044 | 1-162-974-11 | CERAMIC CHIP | 0.01uF | | 50V |
| C045 | 1-163-097-00 | CERAMIC CHIP | 15PF | 5% | 50V |
| C046 | 1-163-097-00 | CERAMIC CHIP | 15PF | 5% | 50V |

< DIODE >

| Ref. No. | Part No. | Description | Remark |
|---|---|---|---|
| D001 | 8-719-801-41 | DIODE 1SS196-TE85L | |
| D002 | 8-719-801-41 | DIODE 1SS196-TE85L | |

< IC >

| Ref. No. | Part No. | Description | Remark |
|---|---|---|---|
| IC001 | 8-752-033-00 | IC CXA1234AR-T3 | |

< COIL >

| Ref. No. | Part No. | Description | | Remark |
|---|---|---|---|---|
| L001 | 1-408-777-00 | INDUCTOR CHIP | 10uH | |
| L001 | 1-410-385-11 | INDUCTOR CHIP | 22uH | |
| L002 | 1-410-656-11 | INDUCTOR CHIP | 150uH | |
| L004 | 1-410-393-11 | INDUCTOR CHIP | 100uH | |
| L005 | 1-410-381-11 | INDUCTOR CHIP | 10uH | |
| L007 | 1-410-393-11 | INDUCTOR CHIP | 100uH | |
| L008 | 1-410-384-31 | INDUCTOR CHIP | 18uH | |
| L009 | 1-410-384-31 | INDUCTOR CHIP | 18uH | |

< TRANSISTOR >

| Ref. No. | Part No. | Description | Remark |
|---|---|---|---|
| Q002 | 8-729-102-07 | TRANSISTOR 2SC2223 | |
| Q003 | 8-729-102-07 | TRANSISTOR 2SC2223 | |

< RESISTOR >

| Ref. No. | Part No. | Description | | | Remark |
|---|---|---|---|---|---|
| R001 | 1-216-089-00 | METAL CHIP | 47K | 5% | 1/10W |
| R002 | 1-216-073-00 | METAL CHIP | 10K | 5% | 1/10W |
| R003 | 1-216-081-00 | METAL CHIP | 22K | 5% | 1/10W |
| R004 | 1-216-055-00 | METAL CHIP | 1.8K | 5% | 1/10W |
| R005 | 1-216-824-11 | METAL CHIP | 1.8K | 5% | 1/16W |
| R006 | 1-216-081-00 | METAL CHIP | 22K | 5% | 1/10W |
| R007 | 1-216-834-11 | METAL CHIP | 12K | 5% | 1/16W |
| R008 | 1-216-835-11 | METAL CHIP | 15K | 5% | 1/16W |
| R009 | 1-216-081-00 | METAL CHIP | 22K | 5% | 1/10W |
| R010 | 1-216-089-00 | METAL CHIP | 47K | 5% | 1/10W |
| R011 | 1-216-073-00 | METAL CHIP | 10K | 5% | 1/10W |
| R012 | 1-216-081-00 | METAL CHIP | 22K | 5% | 1/10W |
| R013 | 1-216-055-00 | METAL CHIP | 1.8K | 5% | 1/10W |
| R014 | 1-216-824-11 | METAL CHIP | 1.8K | 5% | 1/16W |
| R016 | 1-216-081-00 | METAL CHIP | 22K | 5% | 1/10W |
| R017 | 1-216-085-00 | METAL CHIP | 33K | 5% | 1/10W |
| R018 | 1-216-081-00 | METAL CHIP | 22K | 5% | 1/10W |
| R019 | 1-216-089-00 | METAL CHIP | 47K | 5% | 1/10W |
| R020 | 1-216-055-00 | METAL CHIP | 1.8K | 5% | 1/10W |
| R021 | 1-216-055-00 | METAL CHIP | 1.8K | 5% | 1/10W |
| R026 | 1-216-837-11 | METAL CHIP | 22K | 5% | 1/16W |
| R027 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/16W |

| Ref. No. | Part No. | Description | Remark |
|---|---|---|---|
| R028 | 1-216-797-11 | METAL CHIP 10 5% 1/16W | |
| R029 | 1-216-812-11 | METAL CHIP 180 5% 1/16W | |
| R030 | 1-216-837-11 | METAL CHIP 22K 5% 1/16W | |
| R031 | 1-216-833-11 | METAL CHIP 10K 5% 1/16W | |
| R032 | 1-216-797-11 | METAL CHIP 10 5% 1/16W | |
| R033 | 1-216-812-11 | METAL CHIP 180 5% 1/16W | |
| | | < VARIABLE RESISTOR > | |
| RV001 | 1-230-871-11 | RES. ADJ. METAL 22K | |
| RV002 | 1-230-871-11 | RES. ADJ. METAL 22K | |
| RV003 | 1-230-869-11 | RES. ADJ. METAL 4.7K | |
| RV004 | 1-230-869-11 | RES. ADJ. METAL 4.7K | |

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* A-7062-166-A RP-103 BOARD, COMPLETE
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(Ref.No 3,000 Series)

| Ref. No. | Part No. | Description | Remark |
|---|---|---|---|
| | | < CAPACITOR > | |
| C001 | 1-162-974-11 | CERAMIC CHIP 0.01uF 50V | |
| C002 | 1-164-232-11 | CERAMIC CHIP 0.01uF 50V | |
| C003 | 1-163-809-11 | CERAMIC CHIP 0.047uF 10% 25V | |
| C005 | 1-164-330-21 | CERAMIC CHIP 0.22uF 10% 16V | |
| C006 | 1-135-161-21 | TANTALUM CHIP 22uF 10% 6.3V | |
| C007 | 1-163-077-00 | CERAMIC CHIP 0.1uF 10% 25V | |
| C008 | 1-163-035-00 | CERAMIC CHIP 0.047uF 50V | |
| C009 | 1-135-161-21 | TANTALUM CHIP 22uF 10% 6.3V | |
| C010 | 1-163-077-00 | CERAMIC CHIP 0.1uF 10% 25V | |
| C011 | 1-164-232-11 | CERAMIC CHIP 0.01uF 50V | |
| C012 | 1-164-330-21 | CERAMIC CHIP 0.22uF 10% 16V | |
| C013 | 1-163-809-11 | CERAMIC CHIP 0.047uF 10% 25V | |
| C015 | 1-162-974-11 | CERAMIC CHIP 0.01uF 50V | |
| C016 | 1-164-232-11 | CERAMIC CHIP 0.01uF 50V | |
| C017 | 1-164-232-11 | CERAMIC CHIP 0.01uF 50V | |
| C020 | 1-164-232-11 | CERAMIC CHIP 0.01uF 50V | |
| C021 | 1-162-974-11 | CERAMIC CHIP 0.01uF 50V | |
| C022 | 1-135-091-00 | TANTALUM CHIP 1uF 20% 16V | |
| C023 | 1-135-157-21 | TANTALUM CHIP 10uF 20% 6.3V | |
| C024 | 1-164-232-11 | CERAMIC CHIP 0.01uF 50V | |
| C025 | 1-164-232-11 | CERAMIC CHIP 0.01uF 50V | |
| C027 | 1-135-091-00 | TANTALUM CHIP 1uF 20% 16V | |
| C028 | 1-163-809-11 | CERAMIC CHIP 0.047uF 10% 25V | |
| C029 | 1-163-809-11 | CERAMIC CHIP 0.047uF 10% 25V | |
| C030 | 1-162-974-11 | CERAMIC CHIP 0.01uF 50V | |
| C031 | 1-164-218-11 | CERAMIC CHIP 180PF 0.25PF 50V | |
| C032 | 1-162-918-11 | CERAMIC CHIP 18PF 5% 50V | |
| C033 | 1-163-809-11 | CERAMIC CHIP 0.047uF 10% 25V | |
| C034 | 1-162-912-11 | CERAMIC CHIP 7PF 0.5PF 50V | |
| C035 | 1-162-974-11 | CERAMIC CHIP 0.01uF 50V | |
| C036 | 1-164-218-11 | CERAMIC CHIP 180PF 0.25PF 50V | |
| C037 | 1-162-918-11 | CERAMIC CHIP 18PF 5% 50V | |
| C038 | 1-163-809-11 | CERAMIC CHIP 0.047uF 10% 25V | |
| C039 | 1-162-912-11 | CERAMIC CHIP 7PF 0.5PF 50V | |
| C040 | 1-162-913-11 | CERAMIC CHIP 8PF 0.5PF 50V | |
| C041 | 1-162-913-11 | CERAMIC CHIP 8PF 0.5PF 50V | |
| C042 | 1-135-157-21 | TANTALUM CHIP 10uF 20% 6.3V | |
| C043 | 1-135-157-21 | TANTALUM CHIP 10uF 20% 6.3V | |
| C044 | 1-162-974-11 | CERAMIC CHIP 0.01uF 50V | |
| C045 | 1-163-097-00 | CERAMIC CHIP 15PF 5% 50V | |
| C046 | 1-163-097-00 | CERAMIC CHIP 15PF 5% 50V | |
| | | < DIODE > | |
| D001 | 8-719-801-41 | DIODE 1SS196-TE85L | |
| D002 | 8-719-801-41 | DIODE 1SS196-TE85L | |
| | | < IC > | |
| IC001 | 8-752-033-00 | IC CXA1234AR-T3 | |
| | | < COIL > | |
| L001 | 1-408-777-00 | INDUCTOR CHIP 10uH | |
| L001 | 1-410-385-11 | INDUCTOR CHIP 22uH | |
| L002 | 1-410-656-11 | INDUCTOR CHIP 150uH | |
| L004 | 1-410-393-11 | INDUCTOR CHIP 100uH | |
| L005 | 1-410-381-11 | INDUCTOR CHIP 10uH | |
| L007 | 1-410-393-11 | INDUCTOR CHIP 100uH | |
| L008 | 1-410-384-31 | INDUCTOR CHIP 18uH | |
| L009 | 1-410-384-31 | INDUCTOR CHIP 18uH | |
| | | < TRANSISTOR > | |
| Q002 | 8-729-102-07 | TRANSISTOR 2SC2223 | |
| Q003 | 8-729-102-07 | TRANSISTOR 2SC2223 | |
| | | < RESISTOR > | |
| R001 | 1-216-089-00 | METAL CHIP 47K 5% 1/10W | |
| R002 | 1-216-073-00 | METAL CHIP 10K 5% 1/10W | |
| R003 | 1-216-081-00 | METAL CHIP 22K 5% 1/10W | |
| R004 | 1-216-055-00 | METAL CHIP 1.8K 5% 1/10W | |
| R005 | 1-216-824-11 | METAL CHIP 1.8K 5% 1/16W | |
| R006 | 1-216-081-00 | METAL CHIP 22K 5% 1/10W | |
| R007 | 1-216-836-11 | METAL CHIP 18K 5% 1/16W | |
| R008 | 1-216-837-11 | METAL CHIP 22K 5% 1/16W | |
| R009 | 1-216-081-00 | METAL CHIP 22K 5% 1/10W | |
| R010 | 1-216-089-00 | METAL CHIP 47K 5% 1/10W | |
| R011 | 1-216-073-00 | METAL CHIP 10K 5% 1/10W | |
| R012 | 1-216-081-00 | METAL CHIP 22K 5% 1/10W | |
| R013 | 1-216-055-00 | METAL CHIP 1.8K 5% 1/10W | |
| R014 | 1-216-824-11 | METAL CHIP 1.8K 5% 1/16W | |

| Ref. No. | Part No. | Description | Remark |
|---|---|---|---|
| R016 | 1-216-081-00 | METAL CHIP 22K 5% 1/10W | |
| R017 | 1-216-085-00 | METAL CHIP 33K 5% 1/10W | |
| R018 | 1-216-081-00 | METAL CHIP 22K 5% 1/10W | |
| R019 | 1-216-089-00 | METAL CHIP 47K 5% 1/10W | |
| R020 | 1-216-053-00 | METAL CHIP 1.5K 5% 1/10W | |
| R021 | 1-216-053-00 | METAL CHIP 1.5K 5% 1/10W | |
| R026 | 1-216-837-11 | METAL CHIP 22K 5% 1/16W | |
| R027 | 1-216-833-11 | METAL CHIP 10K 5% 1/16W | |
| R028 | 1-216-797-11 | METAL CHIP 10 5% 1/16W | |
| R029 | 1-216-812-11 | METAL CHIP 180 5% 1/16W | |
| R030 | 1-216-837-11 | METAL CHIP 22K 5% 1/16W | |
| R031 | 1-216-833-11 | METAL CHIP 10K 5% 1/16W | |
| R032 | 1-216-797-11 | METAL CHIP 10 5% 1/16W | |
| R033 | 1-216-812-11 | METAL CHIP 180 5% 1/16W | |
| | | < VARIABLE RESISTOR > | |
| RV001 | 1-230-871-11 | RES, ADJ, METAL 22K | |
| RV002 | 1-230-871-11 | RES, ADJ, METAL 22K | |
| RV003 | 1-230-869-11 | RES, ADJ, METAL 4.7K | |
| RV004 | 1-230-869-11 | RES, ADJ, METAL 4.7K | |

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* A-7061-818-A RS-31 BOARD, COMPLETE

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(Ref. No 6,000 Series)

| Ref. No. | Part No. | Description | Remark |
|---|---|---|---|
| | * 1-559-762-11 | WIRE, FLAT TYPE 22P | |
| | 3-712-410-01 | HOLDER, RS | |
| | 3-722-175-01 | SPACER, MD | |
| | | < CONNECTOR > | |
| CN301 | 1-506-481-11 | CONNECTOR 2P, MALE | |
| CN302 | 1-506-481-11 | CONNECTOR 2P, MALE | |
| CN304 | * 1-563-494-11 | CONNECTOR, F.P.C 6P | |
| CN305 | * 1-565-211-11 | CONNECTOR, FPC (ZIF) 22P | |
| | | < DIODE > | |
| D320 | 8-719-800-76 | DIODE 1SS226 | |
| D321 | 8-719-800-76 | DIODE 1SS226 | |
| | | < IC > | |
| IC301 | 8-759-908-81 | IC MB3763PF | |
| IC302 | 8-759-908-81 | IC MB3763PF | |
| | | < PHOTO INTERUPTER > | |
| PH301 | 8-719-939-11 | DIODE GP-2S09-B | |
| PH302 | 8-719-939-11 | DIODE GP-2S09-B | |
| PH303 | 8-719-939-11 | DIODE GP-2S09-B | |
| | | < IC LINK > | |
| PS301 | ⚠1-532-727-11 | LINK, IC 0.25A | |
| | | < TRANSISTOR > | |
| Q301 | 8-729-805-25 | TRANSISTOR 2SB1121 | |
| Q302 | 8-729-216-22 | TRANSISTOR 2SA1162 | |
| Q303 | 8-729-216-22 | TRANSISTOR 2SA1162 | |
| Q304 | 8-729-216-22 | TRANSISTOR 2SA1162 | |
| Q305 | 8-729-901-01 | TRANSISTOR DTC144EK | |
| Q306 | 8-729-901-01 | TRANSISTOR DTC144EK | |
| Q307 | 8-729-901-01 | TRANSISTOR DTC144EK | |
| | | < RESISTOR > | |
| R302 | 1-216-174-00 | METAL GLAZE 100 5% 1/8W | |
| R303 | 1-216-186-00 | METAL GLAZE 330 5% 1/8W | |
| R304 | 1-216-089-00 | METAL CHIP 47K 5% 1/10W | |
| R305 | 1-216-089-00 | METAL CHIP 47K 5% 1/10W | |
| R306 | 1-216-089-00 | METAL CHIP 47K 5% 1/10W | |
| R307 | 1-216-073-00 | METAL CHIP 10K 5% 1/10W | |
| R308 | 1-216-073-00 | METAL CHIP 10K 5% 1/10W | |
| R309 | 1-216-073-00 | METAL CHIP 10K 5% 1/10W | |
| R320 | 1-216-041-00 | METAL CHIP 470 5% 1/10W | |
| R321 | 1-216-041-00 | METAL CHIP 470 5% 1/10W | |
| R322 | 1-216-073-00 | METAL CHIP 10K 5% 1/10W | |
| R323 | 1-216-073-00 | METAL CHIP 10K 5% 1/10W | |
| R324 | 1-216-073-00 | METAL CHIP 10K 5% 1/10W | |
| R325 | 1-216-073-00 | METAL CHIP 10K 5% 1/10W | |
| R326 | 1-216-073-00 | METAL CHIP 10K 5% 1/10W | |
| R327 | 1-216-073-00 | METAL CHIP 10K 5% 1/10W | |
| R328 | 1-216-073-00 | METAL CHIP 10K 5% 1/10W | |
| R329 | 1-216-073-00 | METAL CHIP 10K 5% 1/10W | |
| R330 | 1-216-073-00 | METAL CHIP 10K 5% 1/10W | |
| R331 | 1-216-073-00 | METAL CHIP 10K 5% 1/10W | |
| R332 | 1-216-073-00 | METAL CHIP 10K 5% 1/10W | |

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* 1-635-320-11 SA-30 BOARD (Ref. No 18,000 Series)

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| Ref. No. | Part No. | Description | Remark |
|---|---|---|---|
| | | < VARIABLE RESISTOR > | |
| RV101 | 1-230-661-11 | RES, VAR, CARBON 10K | |
| RV102 | 1-230-661-11 | RES, VAR, CARBON 10K | |

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The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

| Ref. No. | Part No. | Description | | | Remark |
|---|---|---|---|---|---|
| * | A-7062-167-A | SE-10 (P) BOARD, COMPLETE<br>************************<br>(Ref. No 5,000 Series) | | | |
| | 3-831-441-XX | CUSHION (5) | | | |
| | | < CAPACITOR > | | | |
| C006 | 1-126-157-11 | ELECT | 10uF | 20% | 16V |
| C008 | 1-163-095-00 | CERAMIC CHIP | 12PF | 5% | 50V |
| C009 | 1-163-095-00 | CERAMIC CHIP | 12PF | 5% | 50V |
| C010 | 1-163-105-00 | CERAMIC CHIP | 33PF | 5% | 50V |
| C011 | 1-163-105-00 | CERAMIC CHIP | 33PF | 5% | 50V |
| C012 | 1-126-163-11 | ELECT | 4.7uF | 20% | 50V |
| C013 | 1-126-157-11 | ELECT | 10uF | 20% | 16V |
| C014 | 1-163-105-00 | CERAMIC CHIP | 33PF | 5% | 50V |
| C015 | 1-163-105-00 | CERAMIC CHIP | 33PF | 5% | 50V |
| C016 | 1-163-077-00 | CERAMIC CHIP | 0.1uF | 10% | 25V |
| C017 | 1-163-251-11 | CERAMIC CHIP | 100PF | 5% | 50V |
| C018 | 1-163-251-11 | CERAMIC CHIP | 100PF | 5% | 50V |
| C019 | 1-163-038-00 | CERAMIC CHIP | 0.1uF | | 25V |
| C020 | 1-164-232-11 | CERAMIC CHIP | 0.01uF | | 50V |
| C021 | 1-163-038-00 | CERAMIC CHIP | 0.1uF | | 25V |
| C022 | 1-164-232-11 | CERAMIC CHIP | 0.01uF | | 50V |
| C028 | 1-164-232-11 | CERAMIC CHIP | 0.01uF | | 50V |
| C031 | 1-163-038-00 | CERAMIC CHIP | 0.1uF | | 25V |
| C032 | 1-163-038-00 | CERAMIC CHIP | 0.1uF | | 25V |
| C033 | 1-163-038-00 | CERAMIC CHIP | 0.1uF | | 25V |
| C034 | 1-164-232-11 | CERAMIC CHIP | 0.01uF | | 50V |
| C035 | 1-163-038-00 | CERAMIC CHIP | 0.1uF | | 25V |
| C036 | 1-163-038-00 | CERAMIC CHIP | 0.1uF | | 25V |
| C037 | 1-163-038-00 | CERAMIC CHIP | 0.1uF | | 25V |
| C101 | 1-126-157-11 | ELECT | 10uF | 20% | 16V |
| C102 | 1-164-232-11 | CERAMIC CHIP | 0.01uF | | 50V |
| C103 | 1-164-232-11 | CERAMIC CHIP | 0.01uF | | 50V |
| C104 | 1-164-232-11 | CERAMIC CHIP | 0.01uF | | 50V |
| C105 | 1-163-263-11 | CERAMIC CHIP | 330PF | 5% | 50V |
| C106 | 1-163-109-00 | CERAMIC CHIP | 47PF | 5% | 50V |
| C107 | 1-163-109-00 | CERAMIC CHIP | 47PF | 5% | 50V |
| C108 | 1-163-017-00 | CERAMIC CHIP | 0.0047uF | 5% | 50V |
| C109 | 1-163-019-00 | CERAMIC CHIP | 0.0068uF | 10% | 50V |
| C110 | 1-126-320-11 | ELECT, NONPOLAR | 10uF | 20% | 16V |
| C111 | 1-163-037-11 | CERAMIC CHIP | 0.022uF | 10% | 25V |
| C112 | 1-163-037-11 | CERAMIC CHIP | 0.022uF | 10% | 25V |
| C113 | 1-163-809-11 | CERAMIC CHIP | 0.047uF | 10% | 25V |
| C114 | 1-163-017-00 | CERAMIC CHIP | 0.0047uF | 5% | 50V |
| C115 | 1-126-157-11 | ELECT | 10uF | 20% | 16V |
| C116 | 1-124-499-11 | ELECT, NONPOLAR | 1uF | 20% | 50V |
| C117 | 1-163-109-00 | CERAMIC CHIP | 47PF | 5% | 50V |
| C118 | 1-126-157-11 | ELECT | 10uF | 20% | 16V |
| C119 | 1-163-017-00 | CERAMIC CHIP | 0.0047uF | 5% | 50V |
| C120 | 1-163-209-00 | CERAMIC CHIP | 0.0015uF | 5% | 50V |
| C121 | 1-163-209-00 | CERAMIC CHIP | 0.0015uF | 5% | 50V |
| C122 | 1-164-232-11 | CERAMIC CHIP | 0.01uF | | 50V |
| C127 | 1-163-809-11 | CERAMIC CHIP | 0.047uF | 10% | 25V |
| C128 | 1-124-767-00 | ELECT | 2.2uF | 20% | 50V |
| C130 | 1-163-809-11 | CERAMIC CHIP | 0.047uF | 10% | 25V |
| C131 | 1-164-232-11 | CERAMIC CHIP | 0.01uF | | 50V |
| C132 | 1-163-017-00 | CERAMIC CHIP | 0.0047uF | 5% | 50V |
| C133 | 1-164-232-11 | CERAMIC CHIP | 0.01uF | | 50V |
| C134 | 1-124-499-11 | ELECT, NONPOLAR | 1uF | 20% | 50V |
| C135 | 1-163-017-00 | CERAMIC CHIP | 0.0047uF | 5% | 50V |
| C136 | 1-164-232-11 | CERAMIC CHIP | 0.01uF | | 50V |
| C137 | 1-124-768-11 | ELECT | 4.7uF | 20% | 50V |
| C201 | 1-163-038-00 | CERAMIC CHIP | 0.1uF | | 25V |
| C202 | 1-163-123-00 | CERAMIC CHIP | 180PF | 5% | 50V |
| C203 | 1-163-137-00 | CERAMIC CHIP | 680PF | 5% | 50V |
| C204 | 1-163-105-00 | CERAMIC CHIP | 33PF | 5% | 50V |
| C205 | 1-164-232-11 | CERAMIC CHIP | 0.01uF | | 50V |
| C206 | 1-164-232-11 | CERAMIC CHIP | 0.01uF | | 50V |
| C207 | 1-163-141-00 | CERAMIC CHIP | 0.001uF | 5% | 50V |
| C208 | 1-163-037-11 | CERAMIC CHIP | 0.022uF | 10% | 25V |
| C209 | 1-163-809-11 | CERAMIC CHIP | 0.047uF | 10% | 25V |
| C210 | 1-124-234-00 | ELECT | 22uF | 20% | 16V |
| C211 | 1-164-232-11 | CERAMIC CHIP | 0.01uF | | 50V |
| C212 | 1-163-809-11 | CERAMIC CHIP | 0.047uF | 10% | 25V |
| C213 | 1-163-809-11 | CERAMIC CHIP | 0.047uF | 10% | 25V |
| C214 | 1-164-232-11 | CERAMIC CHIP | 0.01uF | | 50V |
| C215 | 1-164-232-11 | CERAMIC CHIP | 0.01uF | | 50V |
| C216 | 1-163-038-00 | CERAMIC CHIP | 0.1uF | | 25V |
| C217 | 1-163-809-11 | CERAMIC CHIP | 0.047uF | 10% | 25V |
| C218 | 1-163-989-11 | CERAMIC CHIP | 0.033uF | 10% | 25V |
| C219 | 1-164-232-11 | CERAMIC CHIP | 0.01uF | | 50V |
| C220 | 1-164-232-11 | CERAMIC CHIP | 0.01uF | | 50V |
| C221 | 1-124-256-00 | ELECT | 1.5uF | 20% | 50V |
| C223 | 1-163-038-00 | CERAMIC CHIP | 0.1uF | | 25V |
| C224 | 1-164-232-11 | CERAMIC CHIP | 0.01uF | | 50V |
| C226 | 1-164-232-11 | CERAMIC CHIP | 0.01uF | | 50V |
| C301 | 1-164-232-11 | CERAMIC CHIP | 0.01uF | | 50V |
| C302 | 1-164-232-11 | CERAMIC CHIP | 0.01uF | | 50V |
| C303 | 1-164-232-11 | CERAMIC CHIP | 0.01uF | | 50V |
| C304 | 1-124-584-00 | ELECT | 100uF | 20% | 10V |
| C305 | 1-164-232-11 | CERAMIC CHIP | 0.01uF | | 50V |
| C306 | 1-124-584-00 | ELECT | 100uF | 20% | 10V |
| C307 | 1-126-163-11 | ELECT | 4.7uF | 20% | 50V |
| C308 | 1-124-257-00 | ELECT | 2.2uF | 20% | 50V |
| C309 | 1-164-232-11 | CERAMIC CHIP | 0.01uF | | 50V |
| C310 | 1-163-077-00 | CERAMIC CHIP | 0.1uF | 10% | 25V |

# SE-10 (P)

| Ref. No. | Part No. | Description | | | Remark |
|---|---|---|---|---|---|
| C311 | 1-163-038-00 | CERAMIC CHIP | 0. 1uF | | 25V |
| C401 | 1-164-232-11 | CERAMIC CHIP | 0. 01uF | | 50V |
| C402 | 1-163-103-00 | CERAMIC CHIP | 27PF | 5% | 50V |
| C403 | 1-126-163-11 | ELECT | 4. 7uF | 20% | 50V |
| C404 | 1-126-163-11 | ELECT | 4. 7uF | 20% | 50V |
| C405 | 1-164-232-11 | CERAMIC CHIP | 0. 01uF | | 50V |
| C406 | 1-163-235-11 | CERAMIC CHIP | 22PF | 5% | 50V |
| C407 | 1-163-035-00 | CERAMIC CHIP | 0. 047uF | | 50V |
| C408 | 1-163-809-11 | CERAMIC CHIP | 0. 047uF | 10% | 25V |
| C409 | 1-164-232-11 | CERAMIC CHIP | 0. 01uF | | 50V |
| C410 | 1-163-125-00 | CERAMIC CHIP | 220PF | 5% | 50V |
| C411 | 1-163-035-00 | CERAMIC CHIP | 0. 047uF | | 50V |
| C412 | 1-126-157-11 | ELECT | 10uF | 20% | 16V |
| C502 | 1-163-038-00 | CERAMIC CHIP | 0. 1uF | | 25V |
| C503 | 1-164-232-11 | CERAMIC CHIP | 0. 01uF | | 50V |
| C504 | 1-124-257-00 | ELECT | 2. 2uF | 20% | 50V |
| C505 | 1-163-038-00 | CERAMIC CHIP | 0. 1uF | | 25V |
| C506 | 1-164-232-11 | CERAMIC CHIP | 0. 01uF | | 50V |
| C508 | 1-124-589-11 | ELECT | 47uF | 20% | 16V |
| C601 | 1-164-232-11 | CERAMIC CHIP | 0. 01uF | | 50V |
| C602 | 1-163-035-00 | CERAMIC CHIP | 0. 047uF | | 50V |
| C603 | 1-163-035-00 | CERAMIC CHIP | 0. 047uF | | 50V |
| C604 | 1-124-589-11 | ELECT | 47uF | 20% | 16V |
| C605 | 1-163-035-00 | CERAMIC CHIP | 0. 047uF | | 50V |
| C606 | 1-163-809-11 | CERAMIC CHIP | 0. 047uF | 10% | 25V |
| C607 | 1-163-809-11 | CERAMIC CHIP | 0. 047uF | 10% | 25V |
| C608 | 1-163-809-11 | CERAMIC CHIP | 0. 047uF | 10% | 25V |
| C609 | 1-163-035-00 | CERAMIC CHIP | 0. 047uF | | 50V |
| C610 | 1-163-009-11 | CERAMIC CHIP | 0. 001uF | 10% | 50V |
| C611 | 1-126-157-11 | ELECT | 10uF | 20% | 16V |
| C612 | 1-126-157-11 | ELECT | 10uF | 20% | 16V |
| C613 | 1-163-009-11 | CERAMIC CHIP | 0. 001uF | 10% | 50V |
| C614 | 1-164-232-11 | CERAMIC CHIP | 0. 01uF | | 50V |
| C615 | 1-164-232-11 | CERAMIC CHIP | 0. 01uF | | 50V |
| C616 | 1-164-633-11 | CERAMIC CHIP | 0. 1uF | 10% | 25V |
| C617 | 1-164-232-11 | CERAMIC CHIP | 0. 01uF | | 50V |
| C620 | 1-163-009-11 | CERAMIC CHIP | 0. 001uF | 10% | 50V |
| C621 | 1-163-009-11 | CERAMIC CHIP | 0. 001uF | 10% | 50V |
| C622 | 1-163-009-11 | CERAMIC CHIP | 0. 001uF | 10% | 50V |
| C623 | 1-163-009-11 | CERAMIC CHIP | 0. 001uF | 10% | 50V |
| C624 | 1-163-009-11 | CERAMIC CHIP | 0. 001uF | 10% | 50V |
| C625 | 1-163-009-11 | CERAMIC CHIP | 0. 001uF | 10% | 50V |
| C626 | 1-163-009-11 | CERAMIC CHIP | 0. 001uF | 10% | 50V |
| C627 | 1-163-009-11 | CERAMIC CHIP | 0. 001uF | 10% | 50V |
| C628 | 1-163-009-11 | CERAMIC CHIP | 0. 001uF | 10% | 50V |
| C629 | 1-163-009-11 | CERAMIC CHIP | 0. 001uF | 10% | 50V |
| C630 | 1-163-009-11 | CERAMIC CHIP | 0. 001uF | 10% | 50V |
| C631 | 1-163-037-11 | CERAMIC CHIP | 0. 022uF | 10% | 25V |
| C632 | 1-126-157-11 | ELECT | 10uF | 20% | 16V |

| Ref. No. | Part No. | Description | Remark |
|---|---|---|---|
| | | < CONNECTOR > | |
| CN001 | * 1-566-641-11 | CONNECTOR, HINGE (TAB) 18P | |
| CN002 | * 1-566-941-11 | CONNECTOR, HINGE (TAB) 30P | |
| CN003 | * 1-566-641-11 | CONNECTOR, HINGE (TAB) 18P | |
| CN004 | 1-566-945-11 | CONNECTOR, BOARD TO BOARD 18P | |
| CN005 | 1-566-946-11 | CONNECTOR, BOARD TO BOARD 22P | |
| CN011 | 1-565-212-11 | CONNECTOR, FPC (ZIF) 26P | |
| CN012 | * 1-565-211-11 | CONNECTOR, FPC (ZIF) 22P | |
| CN901 | 1-506-473-11 | CONNECTOR 8P, MALE | |
| CN902 | 1-506-477-11 | CONNECTOR 12P, MALE | |
| CN903 | 1-506-478-11 | CONNECTOR 13P, MALE | |
| CN904 | 1-506-470-11 | CONNECTOR 5P, MALE | |
| CN905 | 1-506-474-11 | CONNECTOR 9P, MALE | |
| CN906 | 1-506-472-11 | CONNECTOR 7P, MALE | |
| CN907 | 1-506-477-11 | CONNECTOR 12P, MALE | |
| | | < DIODE > | |
| D003 | 8-719-400-18 | DIODE MA152WK | |
| D004 | 8-719-400-18 | DIODE MA152WK | |
| D005 | 8-719-400-18 | DIODE MA152WK | |
| D006 | 8-719-104-34 | DIODE 1S2836 | |
| D007 | 8-719-400-18 | DIODE MA152WK | |
| D008 | 8-719-400-18 | DIODE MA152WK | |
| D009 | 8-719-400-18 | DIODE MA152WK | |
| D012 | 8-719-400-18 | DIODE MA152WK | |
| D013 | 8-719-400-18 | DIODE MA152WK | |
| D015 | 8-719-104-34 | DIODE 1S2836 | |
| D016 | 8-719-104-34 | DIODE 1S2836 | |
| D018 | 8-719-400-18 | DIODE MA152WK | |
| D102 | 8-719-800-76 | DIODE 1SS226 | |
| D103 | 8-719-800-76 | DIODE 1SS226 | |
| D104 | 8-719-104-34 | DIODE 1S2836 | |
| D105 | 8-719-400-18 | DIODE MA152WK | |
| D106 | 8-719-400-18 | DIODE MA152WK | |
| D107 | 8-719-104-34 | DIODE 1S2836 | |
| D108 | 8-719-400-18 | DIODE MA152WK | |
| D109 | 8-719-400-18 | DIODE MA152WK | |
| D110 | 8-719-104-34 | DIODE 1S2836 | |
| D111 | 8-719-400-18 | DIODE MA152WK | |
| D112 | 8-719-104-34 | DIODE 1S2836 | |
| D201 | 8-719-400-18 | DIODE MA152WK | |
| D203 | 8-719-105-82 | DIODE RD5. 1M | |
| D301 | 8-719-400-18 | DIODE MA152WK | |
| D302 | 8-719-400-18 | DIODE MA152WK | |
| D401 | 8-719-800-76 | DIODE 1SS226 | |
| D701 | 8-719-400-18 | DIODE MA152WK | |

| Ref. No. | Part No. | Description | Remark |
|---|---|---|---|
| | | < FILTER > | |
| FL201 | 1-235-611-21 | BPF | |
| FL202 | 1-235-612-21 | BPF | |
| | | < IC > | |
| IC001 | 8-752-816-72 | IC CXP80116-692Q | |
| IC003 | 8-752-815-13 | IC CXP5048H-222Q | |
| IC004 | 8-759-144-21 | IC uPD75106G-573-1B | |
| IC007 | 8-759-008-67 | IC MC14066BF | |
| IC008 | 8-759-937-56 | IC S-8054ALB | |
| IC101 | 8-752-003-50 | IC CX20035 | |
| IC102 | 8-752-817-64 | IC CXP5048H-244Q | |
| IC102 | 8-759-803-47 | IC LA5005M | |
| IC103 | 8-759-925-66 | IC BA6303F | |
| IC104 | 8-759-981-75 | IC RC3403AM | |
| IC105 | 8-759-300-71 | IC TC4053BF | |
| IC106 | 8-759-971-25 | IC MB674169U | |
| IC107 | 8-759-100-94 | IC uPC358G2 | |
| IC108 | 8-759-008-67 | IC MC14066BF | |
| IC201 | 8-759-928-56 | IC CXA1042M | |
| IC202 | 8-759-150-05 | IC uPC324G2 | |
| IC203 | 8-759-300-71 | IC TC4053BF | |
| IC204 | 8-759-927-46 | IC SN74HC00ANS | |
| IC205 | 8-759-711-79 | IC NJM2233BM | |
| IC206 | 8-759-035-93 | IC SC7S32F | |
| IC301 | 8-759-100-94 | IC uPC358G2 | |
| IC302 | 8-759-300-71 | IC TC4053BF | |
| IC303 | 8-759-300-71 | IC TC4053BF | |
| IC304 | 8-759-200-90 | IC TC4538BF | |
| IC305 | 8-759-927-46 | IC SN74HC00ANS | |
| IC601 | 8-759-927-94 | IC BU3707F | |
| IC602 | 8-759-927-52 | IC BA7036LS | |
| IC603 | 8-759-100-93 | IC uPC393G2 | |
| IC604 | 8-759-150-05 | IC uPC324G2 | |
| | | < COIL > | |
| L001 | 1-408-777-00 | INDUCTOR CHIP 10uH | |
| L002 | 1-408-777-00 | INDUCTOR CHIP 10uH | |
| L003 | 1-408-777-00 | INDUCTOR CHIP 10uH | |
| L101 | 1-408-777-00 | INDUCTOR CHIP 10uH | |
| L401 | 1-408-777-00 | INDUCTOR CHIP 10uH | |
| L402 | 1-408-777-00 | INDUCTOR CHIP 10uH | |
| L403 | 1-408-783-00 | INDUCTOR CHIP 33uH | |
| L404 | 1-408-777-00 | INDUCTOR CHIP 10uH | |
| L501 | 1-408-777-00 | INDUCTOR CHIP 10uH | |
| L601 | 1-408-777-00 | INDUCTOR CHIP 10uH | |
| L602 | 1-408-777-00 | INDUCTOR CHIP 10uH | |

| Ref. No. | Part No. | Description | Remark |
|---|---|---|---|
| | | < IC LINK > | |
| PS601 | ⚠1-532-679-00 | LINK, IC | |
| | | < TRANSISTOR > | |
| Q002 | 8-729-901-01 | TRANSISTOR DTC144EK | |
| Q003 | 8-729-901-06 | TRANSISTOR DTA144EK | |
| Q004 | 8-729-901-01 | TRANSISTOR DTC144EK | |
| Q005 | 8-729-901-01 | TRANSISTOR DTC144EK | |
| Q006 | 8-729-901-01 | TRANSISTOR DTC144EK | |
| Q007 | 8-729-901-01 | TRANSISTOR DTC144EK | |
| Q008 | 8-729-901-01 | TRANSISTOR DTC144EK | |
| Q009 | 8-729-901-01 | TRANSISTOR DTC144EK | |
| Q010 | 8-729-901-06 | TRANSISTOR DTA144EK | |
| Q011 | 8-729-901-06 | TRANSISTOR DTA144EK | |
| Q014 | 8-729-901-01 | TRANSISTOR DTC144EK | |
| Q015 | 8-729-901-01 | TRANSISTOR DTC144EK | |
| Q018 | 8-729-901-01 | TRANSISTOR DTC144EK | |
| Q101 | 8-729-901-06 | TRANSISTOR DTA144EK | |
| Q102 | 8-729-901-06 | TRANSISTOR DTA144EK | |
| Q103 | 8-729-901-06 | TRANSISTOR DTA144EK | |
| Q104 | 8-729-901-01 | TRANSISTOR DTC144EK | |
| Q106 | 8-729-100-66 | TRANSISTOR 2SC1623 | |
| Q107 | 8-729-901-06 | TRANSISTOR DTA144EK | |
| Q108 | 8-729-901-06 | TRANSISTOR DTA144EK | |
| Q109 | 8-729-901-06 | TRANSISTOR DTA144EK | |
| Q110 | 8-729-901-06 | TRANSISTOR DTA144EK | |
| Q111 | 8-729-100-66 | TRANSISTOR 2SC1623 | |
| Q112 | 8-729-901-01 | TRANSISTOR DTC144EK | |
| Q113 | 8-729-901-01 | TRANSISTOR DTC144EK | |
| Q114 | 8-729-901-01 | TRANSISTOR DTC144EK | |
| Q115 | 8-729-901-01 | TRANSISTOR DTC144EK | |
| Q116 | 8-729-901-06 | TRANSISTOR DTA144EK | |
| Q202 | 8-729-216-22 | TRANSISTOR 2SA1162 | |
| Q205 | 8-729-901-01 | TRANSISTOR DTC144EK | |
| Q209 | 8-729-901-06 | TRANSISTOR DTA144EK | |
| Q210 | 8-729-901-01 | TRANSISTOR DTC144EK | |
| Q301 | 8-729-901-06 | TRANSISTOR DTA144EK | |
| Q302 | 8-729-901-01 | TRANSISTOR DTC144EK | |
| Q303 | 8-729-901-01 | TRANSISTOR DTC144EK | |
| Q304 | 8-729-901-01 | TRANSISTOR DTC144EK | |
| Q305 | 8-729-901-01 | TRANSISTOR DTC144EK | |
| Q306 | 8-729-901-06 | TRANSISTOR DTA144EK | |
| Q307 | 8-729-901-01 | TRANSISTOR DTC144EK | |
| Q308 | 8-729-901-01 | TRANSISTOR DTC144EK | |
| Q309 | 8-729-901-01 | TRANSISTOR DTC144EK | |
| Q401 | 8-729-216-22 | TRANSISTOR 2SA1162 | |
| Q402 | 8-729-100-66 | TRANSISTOR 2SC1623 | |
| Q403 | 8-729-100-66 | TRANSISTOR 2SC1623 | |

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

# SE-10 (P)

| Ref. No. | Part No. | Description | Remark |
|---|---|---|---|
| Q404 | 8-729-216-22 | TRANSISTOR 2SA1162 | |
| Q405 | 8-729-100-66 | TRANSISTOR 2SC1623 | |
| Q406 | 8-729-216-22 | TRANSISTOR 2SA1162 | |
| Q407 | 8-729-100-66 | TRANSISTOR 2SC1623 | |
| Q408 | 8-729-216-22 | TRANSISTOR 2SA1162 | |
| Q409 | 8-729-100-66 | TRANSISTOR 2SC1623 | |
| Q410 | 8-729-100-66 | TRANSISTOR 2SC1623 | |
| Q411 | 8-729-100-66 | TRANSISTOR 2SC1623 | |
| Q502 | 8-729-100-66 | TRANSISTOR 2SC1623 | |
| Q503 | 8-729-901-06 | TRANSISTOR DTA144EK | |
| Q504 | 8-729-100-66 | TRANSISTOR 2SC1623 | |
| Q505 | 8-729-100-66 | TRANSISTOR 2SC1623 | |
| Q506 | 8-729-100-66 | TRANSISTOR 2SC1623 | |
| Q507 | 8-729-901-06 | TRANSISTOR DTA144EK | |
| Q508 | 8-729-901-06 | TRANSISTOR DTA144EK | |
| Q601 | 8-729-901-06 | TRANSISTOR DTA144EK | |
| Q604 | 8-729-805-25 | TRANSISTOR 2SB1121 | |
| Q605 | 8-729-100-66 | TRANSISTOR 2SC1623 | |
| Q606 | 8-729-901-06 | TRANSISTOR DTA144EK | |
| Q701 | 8-729-901-06 | TRANSISTOR DTA144EK | |
| Q702 | 8-729-901-06 | TRANSISTOR DTA144EK | |
| Q703 | 8-729-901-01 | TRANSISTOR DTC144EK | |
| Q704 | 8-729-216-22 | TRANSISTOR 2SA1162 | |
| Q705 | 8-729-216-22 | TRANSISTOR 2SA1162 | |
| Q706 | 8-729-100-66 | TRANSISTOR 2SC1623 | |
| Q707 | 8-729-100-66 | TRANSISTOR 2SC1623 | |
| Q708 | 8-729-901-06 | TRANSISTOR DTA144EK | |
| Q709 | 8-729-901-06 | TRANSISTOR DTA144EK | |
| Q710 | 8-729-901-06 | TRANSISTOR DTA144EK | |
| Q711 | 8-729-901-06 | TRANSISTOR DTA144EK | |
| Q712 | 8-729-901-06 | TRANSISTOR DTA144EK | |
| Q713 | 8-729-901-01 | TRANSISTOR DTC144EK | |
| Q714 | 8-729-901-01 | TRANSISTOR DTC144EK | |
| | | < RESISTOR > | |
| R001 | 1-216-049-00 | METAL CHIP 1K 5% 1/10W | |
| R002 | 1-216-057-00 | METAL CHIP 2.2K 5% 1/10W | |
| R003 | 1-216-049-00 | METAL CHIP 1K 5% 1/10W | |
| R005 | 1-216-101-00 | METAL CHIP 150K 5% 1/10W | |
| R009 | 1-216-089-00 | METAL CHIP 47K 5% 1/10W | |
| R010 | 1-216-049-00 | METAL CHIP 1K 5% 1/10W | |
| R011 | 1-216-049-00 | METAL CHIP 1K 5% 1/10W | |
| R012 | 1-216-049-00 | METAL CHIP 1K 5% 1/10W | |
| R013 | 1-216-049-00 | METAL CHIP 1K 5% 1/10W | |
| R014 | 1-216-049-00 | METAL CHIP 1K 5% 1/10W | |
| R015 | 1-216-049-00 | METAL CHIP 1K 5% 1/10W | |
| R016 | 1-216-089-00 | METAL CHIP 47K 5% 1/10W | |
| R017 | 1-216-089-00 | METAL CHIP 47K 5% 1/10W | |
| R018 | 1-216-691-11 | METAL CHIP 47K 0.5% 1/10W | |
| R019 | 1-216-691-11 | METAL CHIP 47K 0.5% 1/10W | |
| R020 | 1-216-687-11 | METAL CHIP 33K 0.5% 1/10W | |
| R021 | 1-216-687-11 | METAL CHIP 33K 0.5% 1/10W | |
| R022 | 1-216-687-11 | METAL CHIP 33K 0.5% 1/10W | |
| R023 | 1-216-674-11 | METAL CHIP 9.1K 0.5% 1/10W | |
| R024 | 1-216-089-00 | METAL CHIP 47K 5% 1/10W | |
| R025 | 1-216-097-00 | METAL CHIP 100K 5% 1/10W | |
| R026 | 1-216-073-00 | METAL CHIP 10K 5% 1/10W | |
| R027 | 1-216-049-00 | METAL CHIP 1K 5% 1/10W | |
| R028 | 1-216-039-00 | METAL CHIP 390 5% 1/10W | |
| R029 | 1-216-049-00 | METAL CHIP 1K 5% 1/10W | |
| R030 | 1-216-295-00 | METAL CHIP 0 5% 1/10W | |
| R031 | 1-216-097-00 | METAL CHIP 100K 5% 1/10W | |
| R032 | 1-216-097-00 | METAL CHIP 100K 5% 1/10W | |
| R033 | 1-216-049-00 | METAL CHIP 1K 5% 1/10W | |
| R034 | 1-216-089-00 | METAL CHIP 47K 5% 1/10W | |
| R035 | 1-216-089-00 | METAL CHIP 47K 5% 1/10W | |
| R036 | 1-216-073-00 | METAL CHIP 10K 5% 1/10W | |
| R037 | 1-216-089-00 | METAL CHIP 47K 5% 1/10W | |
| R038 | 1-216-039-00 | METAL CHIP 390 5% 1/10W | |
| R039 | 1-216-089-00 | METAL CHIP 47K 5% 1/10W | |
| R040 | 1-216-089-00 | METAL CHIP 47K 5% 1/10W | |
| R041 | 1-216-073-00 | METAL CHIP 10K 5% 1/10W | |
| R043 | 1-216-089-00 | METAL CHIP 47K 5% 1/10W | |
| R045 | 1-216-089-00 | METAL CHIP 47K 5% 1/10W | |
| R046 | 1-216-049-00 | METAL CHIP 1K 5% 1/10W | |
| R047 | 1-216-049-00 | METAL CHIP 1K 5% 1/10W | |
| R048 | 1-216-049-00 | METAL CHIP 1K 5% 1/10W | |
| R049 | 1-216-049-00 | METAL CHIP 1K 5% 1/10W | |
| R050 | 1-216-073-00 | METAL CHIP 10K 5% 1/10W | |
| R051 | 1-216-073-00 | METAL CHIP 10K 5% 1/10W | |
| R052 | 1-216-097-00 | METAL CHIP 100K 5% 1/10W | |
| R053 | 1-216-097-00 | METAL CHIP 100K 5% 1/10W | |
| R054 | 1-216-073-00 | METAL CHIP 10K 5% 1/10W | |
| R055 | 1-216-073-00 | METAL CHIP 10K 5% 1/10W | |
| R056 | 1-216-073-00 | METAL CHIP 10K 5% 1/10W | |
| R057 | 1-216-073-00 | METAL CHIP 10K 5% 1/10W | |
| R058 | 1-216-073-00 | METAL CHIP 10K 5% 1/10W | |
| R059 | 1-216-073-00 | METAL CHIP 10K 5% 1/10W | |
| R060 | 1-216-073-00 | METAL CHIP 10K 5% 1/10W | |
| R061 | 1-216-073-00 | METAL CHIP 10K 5% 1/10W | |
| R062 | 1-216-039-00 | METAL CHIP 390 5% 1/10W | |
| R063 | 1-216-073-00 | METAL CHIP 10K 5% 1/10W | |
| R064 | 1-216-073-00 | METAL CHIP 10K 5% 1/10W | |
| R065 | 1-216-073-00 | METAL CHIP 10K 5% 1/10W | |
| R066 | 1-216-073-00 | METAL CHIP 10K 5% 1/10W | |
| R067 | 1-216-049-00 | METAL CHIP 1K 5% 1/10W | |
| R068 | 1-216-057-00 | METAL CHIP 2.2K 5% 1/10W | |
| R069 | 1-216-061-00 | METAL CHIP 3.3K 5% 1/10W | |

| Ref. No. | Part No. | Description | | | | Remark |
|---|---|---|---|---|---|---|
| R070 | 1-216-073-00 | METAL CHIP | 10K | 5% | 1/10W | |
| R071 | 1-216-079-00 | METAL CHIP | 18K | 5% | 1/10W | |
| R072 | 1-216-043-00 | METAL CHIP | 560 | 5% | 1/10W | |
| R073 | 1-216-085-00 | METAL CHIP | 33K | 5% | 1/10W | |
| R074 | 1-216-049-00 | METAL CHIP | 1K | 5% | 1/10W | |
| R075 | 1-216-039-00 | METAL CHIP | 390 | 5% | 1/10W | |
| R076 | 1-216-080-00 | METAL CHIP | 20K | 5% | 1/10W | |
| R077 | 1-216-080-00 | METAL CHIP | 20K | 5% | 1/10W | |
| R078 | 1-216-080-00 | METAL CHIP | 20K | 5% | 1/10W | |
| R079 | 1-216-080-00 | METAL CHIP | 20K | 5% | 1/10W | |
| R080 | 1-216-080-00 | METAL CHIP | 20K | 5% | 1/10W | |
| R081 | 1-216-080-00 | METAL CHIP | 20K | 5% | 1/10W | |
| R082 | 1-216-080-00 | METAL CHIP | 20K | 5% | 1/10W | |
| R083 | 1-216-080-00 | METAL CHIP | 20K | 5% | 1/10W | |
| R084 | 1-216-080-00 | METAL CHIP | 20K | 5% | 1/10W | |
| R085 | 1-216-073-00 | METAL CHIP | 10K | 5% | 1/10W | |
| R086 | 1-216-073-00 | METAL CHIP | 10K | 5% | 1/10W | |
| R087 | 1-216-073-00 | METAL CHIP | 10K | 5% | 1/10W | |
| R088 | 1-216-073-00 | METAL CHIP | 10K | 5% | 1/10W | |
| R089 | 1-216-073-00 | METAL CHIP | 10K | 5% | 1/10W | |
| R090 | 1-216-073-00 | METAL CHIP | 10K | 5% | 1/10W | |
| R091 | 1-216-073-00 | METAL CHIP | 10K | 5% | 1/10W | |
| R092 | 1-216-089-00 | METAL CHIP | 47K | 5% | 1/10W | |
| R093 | 1-216-089-00 | METAL CHIP | 47K | 5% | 1/10W | |
| R094 | 1-216-686-11 | METAL CHIP | 30K | 0.5% | 1/10W | |
| R095 | 1-216-091-00 | METAL CHIP | 56K | 5% | 1/10W | |
| R096 | 1-216-077-00 | METAL CHIP | 15K | 5% | 1/10W | |
| R097 | 1-216-049-00 | METAL CHIP | 1K | 5% | 1/10W | |
| R098 | 1-216-073-00 | METAL CHIP | 10K | 5% | 1/10W | |
| R101 | 1-216-079-00 | METAL CHIP | 18K | 5% | 1/10W | |
| R102 | 1-216-085-00 | METAL CHIP | 33K | 5% | 1/10W | |
| R103 | 1-216-049-00 | METAL CHIP | 1K | 5% | 1/10W | |
| R104 | 1-216-069-00 | METAL CHIP | 6.8K | 5% | 1/10W | |
| R105 | 1-216-083-00 | METAL CHIP | 27K | 5% | 1/10W | |
| R106 | 1-216-109-00 | METAL CHIP | 330K | 5% | 1/10W | |
| R107 | 1-216-075-00 | METAL CHIP | 12K | 5% | 1/10W | |
| R108 | 1-216-091-00 | METAL CHIP | 56K | 5% | 1/10W | |
| R109 | 1-216-061-00 | METAL CHIP | 3.3K | 5% | 1/10W | |
| R110 | 1-216-115-00 | METAL CHIP | 560K | 5% | 1/10W | |
| R111 | 1-216-115-00 | METAL CHIP | 560K | 5% | 1/10W | |
| R112 | 1-216-115-00 | METAL CHIP | 560K | 5% | 1/10W | |
| R113 | 1-216-115-00 | METAL CHIP | 560K | 5% | 1/10W | |
| R114 | 1-216-107-00 | METAL CHIP | 270K | 5% | 1/10W | |
| R115 | 1-216-107-00 | METAL CHIP | 270K | 5% | 1/10W | |
| R116 | 1-216-099-00 | METAL CHIP | 120K | 5% | 1/10W | |
| R117 | 1-216-117-00 | METAL CHIP | 680K | 5% | 1/10W | |
| R118 | 1-216-081-00 | METAL CHIP | 22K | 5% | 1/10W | |
| R119 | 1-216-117-00 | METAL CHIP | 680K | 5% | 1/10W | |
| R120 | 1-216-085-00 | METAL CHIP | 33K | 5% | 1/10W | |
| R121 | 1-216-073-00 | METAL CHIP | 10K | 5% | 1/10W | |
| R122 | 1-216-073-00 | METAL CHIP | 10K | 5% | 1/10W | |
| R123 | 1-216-073-00 | METAL CHIP | 10K | 5% | 1/10W | |
| R124 | 1-216-073-00 | METAL CHIP | 10K | 5% | 1/10W | |
| R125 | 1-216-113-00 | METAL CHIP | 470K | 5% | 1/10W | |
| R126 | 1-216-115-00 | METAL CHIP | 560K | 5% | 1/10W | |
| R127 | 1-216-115-00 | METAL CHIP | 560K | 5% | 1/10W | |
| R128 | 1-216-085-00 | METAL CHIP | 33K | 5% | 1/10W | |
| R129 | 1-216-097-00 | METAL CHIP | 100K | 5% | 1/10W | |
| R130 | 1-216-097-00 | METAL CHIP | 100K | 5% | 1/10W | |
| R131 | 1-216-097-00 | METAL CHIP | 100K | 5% | 1/10W | |
| R132 | 1-216-121-00 | METAL CHIP | 1M | 5% | 1/10W | |
| R133 | 1-216-748-11 | METAL CHIP | 39K | 1% | 1/10W | |
| R135 | 1-216-073-00 | METAL CHIP | 10K | 5% | 1/10W | |
| R137 | 1-216-663-11 | METAL CHIP | 3.3K | 0.5% | 1/10W | |
| R138 | 1-216-667-11 | METAL CHIP | 4.7K | 0.5% | 1/10W | |
| R139 | 1-216-295-00 | METAL CHIP | 0 | 5% | 1/10W | |
| R140 | 1-216-295-00 | METAL CHIP | 0 | 5% | 1/10W | |
| R141 | 1-216-067-00 | METAL CHIP | 5.6K | 5% | 1/10W | |
| R142 | 1-216-073-00 | METAL CHIP | 10K | 5% | 1/10W | |
| R143 | 1-216-689-11 | METAL CHIP | 39K | 0.5% | 1/10W | |
| R148 | 1-216-089-00 | METAL CHIP | 47K | 5% | 1/10W | |
| R149 | 1-216-097-00 | METAL CHIP | 100K | 5% | 1/10W | |
| R150 | 1-216-073-00 | METAL CHIP | 10K | 5% | 1/10W | |
| R151 | 1-216-082-00 | METAL GLAZE | 24K | 5% | 1/10W | |
| R152 | 1-216-083-00 | METAL CHIP | 27K | 5% | 1/10W | |
| R153 | 1-216-073-00 | METAL CHIP | 10K | 5% | 1/10W | |
| R154 | 1-216-073-00 | METAL CHIP | 10K | 5% | 1/10W | |
| R155 | 1-216-049-00 | METAL CHIP | 1K | 5% | 1/10W | |
| R156 | 1-216-097-00 | METAL CHIP | 100K | 5% | 1/10W | |
| R157 | 1-216-097-00 | METAL CHIP | 100K | 5% | 1/10W | |
| R158 | 1-216-113-00 | METAL CHIP | 470K | 5% | 1/10W | |
| R159 | 1-216-073-00 | METAL CHIP | 10K | 5% | 1/10W | |
| R160 | 1-216-061-00 | METAL CHIP | 3.3K | 5% | 1/10W | |
| R161 | 1-216-103-00 | METAL CHIP | 180K | 5% | 1/10W | |
| R162 | 1-216-049-00 | METAL CHIP | 1K | 5% | 1/10W | |
| R163 | 1-216-065-00 | METAL CHIP | 4.7K | 5% | 1/10W | |
| R164 | 1-216-073-00 | METAL CHIP | 10K | 5% | 1/10W | |
| R165 | 1-216-073-00 | METAL CHIP | 10K | 5% | 1/10W | |
| R167 | 1-216-097-00 | METAL CHIP | 100K | 5% | 1/10W | |
| R168 | 1-216-085-00 | METAL CHIP | 33K | 5% | 1/10W | |
| R169 | 1-216-097-00 | METAL CHIP | 100K | 5% | 1/10W | |
| R170 | 1-216-085-00 | METAL CHIP | 33K | 5% | 1/10W | |
| R171 | 1-216-085-00 | METAL CHIP | 33K | 5% | 1/10W | |
| R172 | 1-216-089-00 | METAL CHIP | 47K | 5% | 1/10W | |
| R173 | 1-216-073-00 | METAL CHIP | 10K | 5% | 1/10W | |
| R174 | 1-216-073-00 | METAL CHIP | 10K | 5% | 1/10W | |
| R175 | 1-216-097-00 | METAL CHIP | 100K | 5% | 1/10W | |

## SE-10 (P)

| Ref. No. | Part No. | Description | | | | Remark |
|---|---|---|---|---|---|---|
| R177 | 1-216-083-00 | METAL CHIP | 27K | 5% | 1/10W | |
| R180 | 1-216-083-00 | METAL CHIP | 27K | 5% | 1/10W | |
| R181 | 1-216-049-00 | METAL CHIP | 1K | 5% | 1/10W | |
| R204 | 1-216-061-00 | METAL CHIP | 3.3K | 5% | 1/10W | |
| R205 | 1-216-061-00 | METAL CHIP | 3.3K | 5% | 1/10W | |
| R206 | 1-216-061-00 | METAL CHIP | 3.3K | 5% | 1/10W | |
| R207 | 1-216-065-00 | METAL CHIP | 4.7K | 5% | 1/10W | |
| R208 | 1-216-079-00 | METAL CHIP | 18K | 5% | 1/10W | |
| R209 | 1-216-117-00 | METAL CHIP | 680K | 5% | 1/10W | |
| R210 | 1-216-091-00 | METAL CHIP | 56K | 5% | 1/10W | |
| R211 | 1-216-073-00 | METAL CHIP | 10K | 5% | 1/10W | |
| R215 | 1-216-097-00 | METAL CHIP | 100K | 5% | 1/10W | |
| R216 | 1-216-073-00 | METAL CHIP | 10K | 5% | 1/10W | |
| R217 | 1-216-089-00 | METAL CHIP | 47K | 5% | 1/10W | |
| R218 | 1-216-073-00 | METAL CHIP | 10K | 5% | 1/10W | |
| R219 | 1-216-081-00 | METAL CHIP | 22K | 5% | 1/10W | |
| R220 | 1-216-105-00 | METAL CHIP | 220K | 5% | 1/10W | |
| R221 | 1-216-111-00 | METAL CHIP | 390K | 5% | 1/10W | |
| R222 | 1-216-097-00 | METAL CHIP | 100K | 5% | 1/10W | |
| R223 | 1-216-073-00 | METAL CHIP | 10K | 5% | 1/10W | |
| R224 | 1-216-121-00 | METAL CHIP | 1M | 5% | 1/10W | |
| R225 | 1-216-089-00 | METAL CHIP | 47K | 5% | 1/10W | |
| R226 | 1-216-045-00 | METAL CHIP | 680 | 5% | 1/10W | |
| R227 | 1-216-045-00 | METAL CHIP | 680 | 5% | 1/10W | |
| R228 | 1-216-097-00 | METAL CHIP | 100K | 5% | 1/10W | |
| R234 | 1-216-089-00 | METAL CHIP | 47K | 5% | 1/10W | |
| R235 | 1-216-073-00 | METAL CHIP | 10K | 5% | 1/10W | |
| R236 | 1-216-049-00 | METAL CHIP | 1K | 5% | 1/10W | |
| R237 | 1-216-295-00 | METAL CHIP | 0 | 5% | 1/10W | |
| R301 | 1-216-093-00 | METAL CHIP | 68K | 5% | 1/10W | |
| R302 | 1-216-083-00 | METAL CHIP | 27K | 5% | 1/10W | |
| R303 | 1-216-049-00 | METAL CHIP | 1K | 5% | 1/10W | |
| R304 | 1-216-081-00 | METAL CHIP | 22K | 5% | 1/10W | |
| R305 | 1-216-073-00 | METAL CHIP | 10K | 5% | 1/10W | |
| R306 | 1-216-081-00 | METAL CHIP | 22K | 5% | 1/10W | |
| R307 | 1-216-081-00 | METAL CHIP | 22K | 5% | 1/10W | |
| R308 | 1-216-065-00 | METAL CHIP | 4.7K | 5% | 1/10W | |
| R309 | 1-216-065-00 | METAL CHIP | 4.7K | 5% | 1/10W | |
| R310 | 1-216-295-00 | METAL CHIP | 0 | 5% | 1/10W | |
| R312 | 1-216-053-00 | METAL CHIP | 1.5K | 5% | 1/10W | |
| R314 | 1-216-061-00 | METAL CHIP | 3.3K | 5% | 1/10W | |
| R315 | 1-216-295-00 | METAL CHIP | 0 | 5% | 1/10W | |
| R316 | 1-216-065-00 | METAL CHIP | 4.7K | 5% | 1/10W | |
| R317 | 1-216-065-00 | METAL CHIP | 4.7K | 5% | 1/10W | |
| R318 | 1-216-049-00 | METAL CHIP | 1K | 5% | 1/10W | |
| R319 | 1-216-089-00 | METAL CHIP | 47K | 5% | 1/10W | |
| R320 | 1-216-089-00 | METAL CHIP | 47K | 5% | 1/10W | |
| R321 | 1-216-105-00 | METAL CHIP | 220K | 5% | 1/10W | |
| R322 | 1-216-105-00 | METAL CHIP | 220K | 5% | 1/10W | |

| Ref. No. | Part No. | Description | | | | Remark |
|---|---|---|---|---|---|---|
| R323 | 1-216-049-00 | METAL CHIP | 1K | 5% | 1/10W | |
| R324 | 1-216-073-00 | METAL CHIP | 10K | 5% | 1/10W | |
| R325 | 1-216-073-00 | METAL CHIP | 10K | 5% | 1/10W | |
| R326 | 1-216-073-00 | METAL CHIP | 10K | 5% | 1/10W | |
| R327 | 1-216-089-00 | METAL CHIP | 47K | 5% | 1/10W | |
| R328 | 1-216-113-00 | METAL CHIP | 470K | 5% | 1/10W | |
| R329 | 1-216-073-00 | METAL CHIP | 10K | 5% | 1/10W | |
| R330 | 1-216-073-00 | METAL CHIP | 10K | 5% | 1/10W | |
| R331 | 1-216-073-00 | METAL CHIP | 10K | 5% | 1/10W | |
| R332 | 1-216-073-00 | METAL CHIP | 10K | 5% | 1/10W | |
| R401 | 1-216-043-00 | METAL CHIP | 560 | 5% | 1/10W | |
| R402 | 1-216-077-00 | METAL CHIP | 15K | 5% | 1/10W | |
| R403 | 1-216-081-00 | METAL CHIP | 22K | 5% | 1/10W | |
| R404 | 1-216-089-00 | METAL CHIP | 47K | 5% | 1/10W | |
| R405 | 1-216-085-00 | METAL CHIP | 33K | 5% | 1/10W | |
| R406 | 1-216-073-00 | METAL CHIP | 10K | 5% | 1/10W | |
| R407 | 1-216-073-00 | METAL CHIP | 10K | 5% | 1/10W | |
| R408 | 1-216-089-00 | METAL CHIP | 47K | 5% | 1/10W | |
| R409 | 1-216-069-00 | METAL CHIP | 6.8K | 5% | 1/10W | |
| R410 | 1-216-085-00 | METAL CHIP | 33K | 5% | 1/10W | |
| R411 | 1-216-085-00 | METAL CHIP | 33K | 5% | 1/10W | |
| R412 | 1-216-079-00 | METAL CHIP | 18K | 5% | 1/10W | |
| R413 | 1-216-052-00 | METAL CHIP | 1.3K | 5% | 1/10W | |
| R414 | 1-216-045-00 | METAL CHIP | 680 | 5% | 1/10W | |
| R415 | 1-216-081-00 | METAL CHIP | 22K | 5% | 1/10W | |
| R416 | 1-216-081-00 | METAL CHIP | 22K | 5% | 1/10W | |
| R417 | 1-216-047-00 | METAL CHIP | 820 | 5% | 1/10W | |
| R418 | 1-216-051-00 | METAL CHIP | 1.2K | 5% | 1/10W | |
| R419 | 1-216-051-00 | METAL CHIP | 1.2K | 5% | 1/10W | |
| R420 | 1-216-029-00 | METAL CHIP | 150 | 5% | 1/10W | |
| R421 | 1-216-081-00 | METAL CHIP | 22K | 5% | 1/10W | |
| R422 | 1-216-081-00 | METAL CHIP | 22K | 5% | 1/10W | |
| R502 | 1-216-045-00 | METAL CHIP | 680 | 5% | 1/10W | |
| R503 | 1-216-077-00 | METAL CHIP | 15K | 5% | 1/10W | |
| R504 | 1-216-073-00 | METAL CHIP | 10K | 5% | 1/10W | |
| R505 | 1-216-033-00 | METAL CHIP | 220 | 5% | 1/10W | |
| R506 | 1-216-035-00 | METAL CHIP | 270 | 5% | 1/10W | |
| R507 | 1-216-041-00 | METAL CHIP | 470 | 5% | 1/10W | |
| R508 | 1-216-072-00 | METAL CHIP | 9.1K | 5% | 1/10W | |
| R509 | 1-216-057-00 | METAL CHIP | 2.2K | 5% | 1/10W | |
| R510 | 1-216-051-00 | METAL CHIP | 1.2K | 5% | 1/10W | |
| R511 | 1-216-049-00 | METAL CHIP | 1K | 5% | 1/10W | |
| R512 | 1-216-085-00 | METAL CHIP | 33K | 5% | 1/10W | |
| R513 | 1-216-081-00 | METAL CHIP | 22K | 5% | 1/10W | |
| R514 | 1-216-069-00 | METAL CHIP | 6.8K | 5% | 1/10W | |
| R515 | 1-216-041-00 | METAL CHIP | 470 | 5% | 1/10W | |
| R551 | 1-216-073-00 | METAL CHIP | 10K | 5% | 1/10W | |
| R552 | 1-216-073-00 | METAL CHIP | 10K | 5% | 1/10W | |
| R553 | 1-216-748-11 | METAL CHIP | 39K | 1% | 1/10W | |

| Ref. No. | Part No. | Description | Remark |
|---|---|---|---|
| R554 | 1-216-685-11 | METAL CHIP 27K 0.5% 1/10W | |
| R555 | 1-216-073-00 | METAL CHIP 10K 5% 1/10W | |
| R556 | 1-216-073-00 | METAL CHIP 10K 5% 1/10W | |
| R557 | 1-216-109-00 | METAL CHIP 330K 5% 1/10W | |
| R558 | 1-216-295-00 | METAL CHIP 0 5% 1/10W | |
| R561 | 1-216-073-00 | METAL CHIP 10K 5% 1/10W | |
| R562 | 1-216-090-00 | METAL CHIP 51K 5% 1/10W | |
| R563 | 1-216-085-00 | METAL CHIP 33K 5% 1/10W | |
| R564 | 1-216-073-00 | METAL CHIP 10K 5% 1/10W | |
| R565 | 1-216-049-00 | METAL CHIP 1K 5% 1/10W | |
| R566 | 1-216-041-00 | METAL CHIP 470 5% 1/10W | |
| R567 | 1-216-049-00 | METAL CHIP 1K 5% 1/10W | |
| R602 | 1-216-081-00 | METAL CHIP 22K 5% 1/10W | |
| R604 | 1-216-049-00 | METAL CHIP 1K 5% 1/10W | |
| R605 | 1-216-073-00 | METAL CHIP 10K 5% 1/10W | |
| R606 | 1-216-069-00 | METAL CHIP 6.8K 5% 1/10W | |
| R607 | 1-216-073-00 | METAL CHIP 10K 5% 1/10W | |
| R608 | 1-216-069-00 | METAL CHIP 6.8K 5% 1/10W | |
| R609 | 1-216-049-00 | METAL CHIP 1K 5% 1/10W | |
| R610 | 1-216-061-00 | METAL CHIP 3.3K 5% 1/10W | |
| R611 | 1-216-073-00 | METAL CHIP 10K 5% 1/10W | |
| R612 | 1-216-073-00 | METAL CHIP 10K 5% 1/10W | |
| R613 | 1-216-061-00 | METAL CHIP 3.3K 5% 1/10W | |
| R614 | 1-216-049-00 | METAL CHIP 1K 5% 1/10W | |
| R615 | 1-216-049-00 | METAL CHIP 1K 5% 1/10W | |
| R616 | 1-216-069-00 | METAL CHIP 6.8K 5% 1/10W | |
| R617 | 1-216-121-00 | METAL CHIP 1M 5% 1/10W | |
| R618 | 1-216-049-00 | METAL CHIP 1K 5% 1/10W | |
| R619 | 1-216-049-00 | METAL CHIP 1K 5% 1/10W | |
| R620 | 1-216-049-00 | METAL CHIP 1K 5% 1/10W | |
| R621 | 1-216-049-00 | METAL CHIP 1K 5% 1/10W | |
| R622 | 1-216-049-00 | METAL CHIP 1K 5% 1/10W | |
| R623 | 1-216-049-00 | METAL CHIP 1K 5% 1/10W | |
| R624 | 1-216-049-00 | METAL CHIP 1K 5% 1/10W | |
| R625 | 1-216-049-00 | METAL CHIP 1K 5% 1/10W | |
| R626 | 1-216-049-00 | METAL CHIP 1K 5% 1/10W | |
| R627 | 1-216-049-00 | METAL CHIP 1K 5% 1/10W | |
| R628 | 1-216-049-00 | METAL CHIP 1K 5% 1/10W | |
| R629 | 1-216-049-00 | METAL CHIP 1K 5% 1/10W | |
| R630 | 1-216-049-00 | METAL CHIP 1K 5% 1/10W | |
| R632 | 1-216-049-00 | METAL CHIP 1K 5% 1/10W | |
| R633 | 1-216-045-00 | METAL CHIP 680 5% 1/10W | |
| R634 | 1-216-045-00 | METAL CHIP 680 5% 1/10W | |
| R635 | 1-216-045-00 | METAL CHIP 680 5% 1/10W | |
| R636 | 1-216-049-00 | METAL CHIP 1K 5% 1/10W | |
| R637 | 1-216-073-00 | METAL CHIP 10K 5% 1/10W | |
| R638 | 1-216-073-00 | METAL CHIP 10K 5% 1/10W | |
| R639 | 1-216-073-00 | METAL CHIP 10K 5% 1/10W | |

| Ref. No. | Part No. | Description | Remark |
|---|---|---|---|
| R640 | 1-216-073-00 | METAL CHIP 10K 5% 1/10W | |
| R641 | 1-216-073-00 | METAL CHIP 10K 5% 1/10W | |
| R643 | 1-216-049-00 | METAL CHIP 1K 5% 1/10W | |
| R701 | 1-216-097-00 | METAL CHIP 100K 5% 1/10W | |
| R702 | 1-216-057-00 | METAL CHIP 2.2K 5% 1/10W | |
| R703 | 1-216-691-11 | METAL CHIP 47K 0.5% 1/10W | |
| R704 | 1-216-693-11 | METAL CHIP 56K 0.5% 1/10W | |
| R705 | 1-216-663-11 | METAL CHIP 3.3K 0.5% 1/10W | |
| R706 | 1-216-697-11 | METAL CHIP 82K 0.5% 1/10W | |
| R707 | 1-216-101-00 | METAL CHIP 150K 5% 1/10W | |
| R708 | 1-216-685-11 | METAL CHIP 27K 0.5% 1/10W | |
| R709 | 1-216-689-11 | METAL CHIP 39K 0.5% 1/10W | |
| R710 | 1-216-681-11 | METAL CHIP 18K 0.5% 1/10W | |
| R711 | 1-216-673-11 | METAL CHIP 8.2K 0.5% 1/10W | |
| R712 | 1-216-685-11 | METAL CHIP 27K 0.5% 1/10W | |
| R713 | 1-216-689-11 | METAL CHIP 39K 0.5% 1/10W | |
| R714 | 1-216-663-11 | METAL CHIP 3.3K 0.5% 1/10W | |

< VARIABLE RESISTOR >

| | | |
|---|---|---|
| RV101 | 1-230-875-21 | RES, ADJ, METAL 220K |
| RV102 | 1-230-875-21 | RES, ADJ, METAL 220K |
| RV103 | 1-230-871-11 | RES, ADJ, METAL 22K |
| RV104 | 1-230-871-11 | RES, ADJ, METAL 22K |
| RV105 | 1-230-870-11 | RES, ADJ, METAL 10K |
| RV106 | 1-230-870-11 | RES, ADJ, METAL 10K |
| RV201 | 1-230-873-11 | RES, ADJ, METAL 47K |
| RV203 | 1-230-869-11 | RES, ADJ, METAL 4.7K |
| RV204 | 1-230-869-11 | RES, ADJ, METAL 4.7K |
| RV301 | 1-230-868-11 | RES, ADJ, METAL 2.2K |
| RV302 | 1-230-868-11 | RES, ADJ, METAL 2.2K |
| RV303 | 1-230-869-11 | RES, ADJ, METAL 4.7K |
| RV304 | 1-230-873-11 | RES, ADJ, METAL 47K |

< CRYSTAL >

| | | |
|---|---|---|
| X001 | 1-577-116-21 | OSCILLATOR, CRYSTAL (16MHz) |
| X002 | 1-567-346-11 | OSCILLATOR, CERAMIC (5MHz) |
| X003 | 1-567-346-11 | OSCILLATOR, CERAMIC (5MHz) |
| X004 | 1-567-160-21 | OSCILLATOR, CERAMIC (4.19MHz) |
| X101 | 1-567-504-81 | OSCILLATOR, CRYSTAL (4.433619MH) |

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* A-7071-451-A SI-12 BOARD, COMPLETE

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< JACK >

| | | |
|---|---|---|
| J201 | 1-566-847-41 | CONNECTOR, (S) TERMINAL 4P (PLAYER OUT) |
| J202 | 1-566-847-41 | CONNECTOR, (S) TERMINAL 4P (RECODER OUT) |
| J203 | 1-566-847-41 | CONNECTOR, (S) TERMINAL 4P (RECODER IN) |

| Ref. No. | Part No. | Description | | | Remark |
|---|---|---|---|---|---|
| | * 1-635-323-11 | TC-16 BOARD<br>*********** | | | |
| | * 3-724-111-01 | HOLDER, CONNECTOR | | | |
| | | < COMPOSITION CIRCUIT BLOCK > | | | |
| CP401 | 1-232-159-00 | COMPOSITION CIRCUIT BLOCK | | | |
| | | < JACK > | | | |
| J402 | 1-566-769-11 | SOCKET, DIN (SMALL TYPE) 5P<br>(TITLE KEY BOARD) | | | |

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A-7070-628-A TS-74 (LEFT) BOARD, COMPLETE
****************************
(Ref. No 1,000 Series)

< TRANSISTOR >

| Ref. No. | Part No. | Description | Remark |
|---|---|---|---|
| Q715 | 8-729-700-11 | TRANSISTOR NJL7141E | |

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A-7070-627-A TS-74 (RIGHT) BOARD, COMPLETE
*****************************
(Ref. No 2,000 Series)

< TRANSISTOR >

| Ref. No. | Part No. | Description | Remark |
|---|---|---|---|
| Q715 | 8-729-700-11 | TRANSISTOR NJL7141E | |

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* A-7062-844-A YC-106 BOARD, COMPLETE
**********************

| Ref. No. | Part No. | Description | | | Remark |
|---|---|---|---|---|---|
| | * 3-943-824-01 | LID, UPPER, YC SHIELD CASE | | | |
| | * 3-943-825-01 | LID, BOTTOM, YC SHIELD CASE | | | |
| | 7-685-646-79 | SCREW +BVTP 3X8 TYPE2 IT-3 | | | |
| | | < CAPACITOR > | | | |
| C201 | 1-126-154-11 | ELECT | 47uF | 20% | 6.3V |
| C202 | 1-164-004-11 | CERAMIC CHIP | 0.1uF | 10% | 25V |
| C203 | 1-126-154-11 | ELECT | 47uF | 20% | 6.3V |
| C204 | 1-163-097-00 | CERAMIC CHIP | 15PF | 5% | 50V |
| C205 | 1-163-123-00 | CERAMIC CHIP | 180PF | 5% | 50V |
| C206 | 1-164-232-11 | CERAMIC CHIP | 0.01uF | | 50V |
| C207 | 1-163-141-00 | CERAMIC CHIP | 0.001uF | 5% | 50V |
| C208 | 1-126-157-11 | ELECT | 10uF | 20% | 16V |
| C209 | 1-164-232-11 | CERAMIC CHIP | 0.01uF | | 50V |
| C210 | 1-164-004-11 | CERAMIC CHIP | 0.1uF | 10% | 25V |
| C211 | 1-124-584-00 | ELECT | 100uF | 20% | 10V |
| C212 | 1-126-160-11 | ELECT | 1uF | 20% | 50V |
| C213 | 1-164-232-11 | CERAMIC CHIP | 0.01uF | | 50V |
| C214 | 1-126-160-11 | ELECT | 1uF | 20% | 50V |
| C215 | 1-163-135-00 | CERAMIC CHIP | 560PF | 5% | 50V |
| C216 | 1-163-097-00 | CERAMIC CHIP | 15PF | 5% | 50V |
| C217 | 1-164-232-11 | CERAMIC CHIP | 0.01uF | | 50V |
| C218 | 1-163-141-00 | CERAMIC CHIP | 0.001uF | 5% | 50V |
| C219 | 1-163-141-00 | CERAMIC CHIP | 0.001uF | 5% | 50V |
| C220 | 1-163-035-00 | CERAMIC CHIP | 0.047uF | | 50V |
| C221 | 1-163-035-00 | CERAMIC CHIP | 0.047uF | | 50V |
| C222 | 1-126-160-11 | ELECT | 1uF | 20% | 50V |
| C223 | 1-124-465-00 | ELECT | 0.47uF | 20% | 50V |
| C224 | 1-126-160-11 | ELECT | 1uF | 20% | 50V |
| C225 | 1-163-117-00 | CERAMIC CHIP | 100PF | 5% | 50V |
| C226 | 1-164-232-11 | CERAMIC CHIP | 0.01uF | | 50V |
| C227 | 1-163-097-00 | CERAMIC CHIP | 15PF | 5% | 50V |
| C228 | 1-163-123-00 | CERAMIC CHIP | 180PF | 5% | 50V |
| C229 | 1-164-232-11 | CERAMIC CHIP | 0.01uF | | 50V |
| C230 | 1-126-154-11 | ELECT | 47uF | 20% | 6.3V |
| C231 | 1-164-004-11 | CERAMIC CHIP | 0.1uF | 10% | 25V |
| C232 | 1-126-154-11 | ELECT | 47uF | 20% | 6.3V |
| C233 | 1-126-154-11 | ELECT | 47uF | 20% | 6.3V |
| C234 | 1-126-154-11 | ELECT | 47uF | 20% | 6.3V |
| C236 | 1-126-157-11 | ELECT | 10uF | 20% | 16V |
| C237 | 1-164-004-11 | CERAMIC CHIP | 0.1uF | 10% | 25V |
| C238 | 1-164-004-11 | CERAMIC CHIP | 0.1uF | 10% | 25V |
| C239 | 1-126-154-11 | ELECT | 47uF | 20% | 6.3V |
| C601 | 1-126-154-11 | ELECT | 47uF | 20% | 6.3V |
| C602 | 1-164-004-11 | CERAMIC CHIP | 0.1uF | 10% | 25V |
| C603 | 1-126-163-11 | ELECT | 4.7uF | 20% | 50V |
| C604 | 1-126-154-11 | ELECT | 47uF | 20% | 6.3V |
| C606 | 1-126-154-11 | ELECT | 47uF | 20% | 6.3V |
| C607 | 1-164-004-11 | CERAMIC CHIP | 0.1uF | 10% | 25V |
| C609 | 1-164-004-11 | CERAMIC CHIP | 0.1uF | 10% | 25V |
| C610 | 1-164-232-11 | CERAMIC CHIP | 0.01uF | | 50V |
| C611 | 1-126-154-11 | ELECT | 47uF | 20% | 6.3V |
| C612 | 1-164-004-11 | CERAMIC CHIP | 0.1uF | 10% | 25V |
| C613 | 1-164-232-11 | CERAMIC CHIP | 0.01uF | | 50V |
| C614 | 1-163-117-00 | CERAMIC CHIP | 100PF | 5% | 50V |
| C615 | 1-164-232-11 | CERAMIC CHIP | 0.01uF | | 50V |
| C616 | 1-164-232-11 | CERAMIC CHIP | 0.01uF | | 50V |
| C617 | 1-126-154-11 | ELECT | 47uF | 20% | 6.3V |
| C618 | 1-164-004-11 | CERAMIC CHIP | 0.1uF | 10% | 25V |
| C619 | 1-164-004-11 | CERAMIC CHIP | 0.1uF | 10% | 25V |
| C620 | 1-164-004-11 | CERAMIC CHIP | 0.1uF | 10% | 25V |
| C621 | 1-164-004-11 | CERAMIC CHIP | 0.1uF | 10% | 25V |
| C622 | 1-164-004-11 | CERAMIC CHIP | 0.1uF | 10% | 25V |
| C623 | 1-164-004-11 | CERAMIC CHIP | 0.1uF | 10% | 25V |
| C624 | 1-164-004-11 | CERAMIC CHIP | 0.1uF | 10% | 25V |

| Ref. No. | Part No. | Description | | | Remark |
|---|---|---|---|---|---|
| C625 | 1-164-004-11 | CERAMIC CHIP | 0.1uF | 10% | 25V |
| C626 | 1-126-154-11 | ELECT | 47uF | 20% | 6.3V |
| C627 | 1-164-232-11 | CERAMIC CHIP | 0.01uF | | 50V |
| C628 | 1-126-154-11 | ELECT | 47uF | 20% | 6.3V |
| C629 | 1-164-232-11 | CERAMIC CHIP | 0.01uF | | 50V |
| C630 | 1-126-163-11 | ELECT | 4.7uF | 20% | 50V |
| C631 | 1-163-005-11 | CERAMIC CHIP | 470PF | 10% | 50V |
| C632 | 1-164-232-11 | CERAMIC CHIP | 0.01uF | | 50V |
| C633 | 1-164-232-11 | CERAMIC CHIP | 0.01uF | | 50V |
| C634 | 1-164-232-11 | CERAMIC CHIP | 0.01uF | | 50V |
| C640 | 1-164-004-11 | CERAMIC CHIP | 0.1uF | 10% | 25V |
| C801 | 1-126-157-11 | ELECT | 10uF | 20% | 16V |
| C802 | 1-124-584-00 | ELECT | 100uF | 20% | 10V |
| C803 | 1-126-154-11 | ELECT | 47uF | 20% | 6.3V |
| C804 | 1-124-584-00 | ELECT | 100uF | 20% | 10V |
| C805 | 1-163-101-00 | CERAMIC CHIP | 22PF | 5% | 50V |
| C806 | 1-124-584-00 | ELECT | 100uF | 20% | 10V |
| C809 | 1-163-104-00 | CERAMIC CHIP | 30PF | 5% | 50V |
| C810 | 1-124-584-00 | ELECT | 100uF | 20% | 10V |
| C814 | 1-126-154-11 | ELECT | 47uF | 20% | 6.3V |
| C815 | 1-124-584-00 | ELECT | 100uF | 20% | 10V |
| C816 | 1-164-232-11 | CERAMIC CHIP | 0.01uF | | 50V |
| C817 | 1-126-154-11 | ELECT | 47uF | 20% | 6.3V |
| C818 | 1-124-584-00 | ELECT | 100uF | 20% | 10V |
| C822 | 1-126-154-11 | ELECT | 47uF | 20% | 6.3V |
| C823 | 1-124-584-00 | ELECT | 100uF | 20% | 10V |
| C824 | 1-164-232-11 | CERAMIC CHIP | 0.01uF | | 50V |
| C825 | 1-126-154-11 | ELECT | 47uF | 20% | 6.3V |
| C826 | 1-124-584-00 | ELECT | 100uF | 20% | 10V |
| C827 | 1-126-157-11 | ELECT | 10uF | 20% | 16V |
| C828 | 1-164-232-11 | CERAMIC CHIP | 0.01uF | | 50V |
| C829 | 1-126-154-11 | ELECT | 47uF | 20% | 6.3V |
| C830 | 1-163-035-00 | CERAMIC CHIP | 0.047uF | | 50V |
| C831 | 1-163-035-00 | CERAMIC CHIP | 0.047uF | | 50V |
| C832 | 1-163-035-00 | CERAMIC CHIP | 0.047uF | | 50V |
| C833 | 1-126-154-11 | ELECT | 47uF | 20% | 6.3V |
| C834 | 1-164-232-11 | CERAMIC CHIP | 0.01uF | | 50V |
| C835 | 1-163-035-00 | CERAMIC CHIP | 0.047uF | | 50V |
| C839 | 1-126-157-11 | ELECT | 10uF | 20% | 16V |
| C840 | 1-163-035-00 | CERAMIC CHIP | 0.047uF | | 50V |
| C841 | 1-164-232-11 | CERAMIC CHIP | 0.01uF | | 50V |
| C842 | 1-126-154-11 | ELECT | 47uF | 20% | 6.3V |
| C843 | 1-126-154-11 | ELECT | 47uF | 20% | 6.3V |
| C844 | 1-163-117-00 | CERAMIC CHIP | 100PF | 5% | 50V |

< CONNECTOR >

| Ref. No. | Part No. | Description | Remark |
|---|---|---|---|
| CN501 | 1-506-470-11 | CONNECTOR 5P, MALE | |
| CN502 | 1-506-471-11 | CONNECTOR 6P, MALE | |
| CN503 | 1-506-483-21 | CONNECTOR 4P, MALE | |
| CN504 | 1-506-470-11 | CONNECTOR 5P, MALE | |

< TRIMMER >

| Ref. No. | Part No. | Description | Remark |
|---|---|---|---|
| CV201 | 1-141-368-11 | CAP, CHIP TRIMMER | |

< DIODE >

| Ref. No. | Part No. | Description | Remark |
|---|---|---|---|
| D601 | 8-719-400-18 | DIODE MA152WK | |

< INDUCTOR >

| Ref. No. | Part No. | Description | Remark |
|---|---|---|---|
| FB601 | 1-412-364-11 | INDUCTOR CHIP 0UH | |
| FB602 | 1-412-364-11 | INDUCTOR CHIP 0UH | |
| FB603 | 1-412-364-11 | INDUCTOR CHIP 0UH | |

< FILTER >

| Ref. No. | Part No. | Description | Remark |
|---|---|---|---|
| FL601 | 1-236-925-11 | FILTER, LOW PASS | |
| FL603 | 1-239-153-21 | FILTER, BAND PASS | |
| FL801 | 1-236-564-11 | FILTER, LOW PASS | |
| FL802 | 1-235-779-11 | LPF | |
| FL803 | 1-236-835-11 | FILTER, BAND PASS | |

< IC >

| Ref. No. | Part No. | Description | Remark |
|---|---|---|---|
| IC201 | 8-759-603-54 | IC M51271FP | |
| IC604 | 8-759-506-97 | IC BU5801K | |
| IC605 | 8-752-334-55 | IC CXD1175AM | |
| IC606 | 8-752-342-61 | IC CXD2105AQ | |
| IC801 | 8-759-711-79 | IC NJM2233BM | |
| IC802 | 8-759-711-79 | IC NJM2233BM | |
| IC803 | 8-759-711-79 | IC NJM2233BM | |

< COIL >

| Ref. No. | Part No. | Description | Remark |
|---|---|---|---|
| L201 | 1-408-979-21 | INDUCTOR 56uH | |
| L202 | 1-408-981-21 | INDUCTOR 82uH | |
| L203 | 1-408-968-21 | INDUCTOR 6.8uH | |
| L204 | 1-407-169-XX | INDUCTOR 100uH | |
| L205 | 1-408-981-21 | INDUCTOR 82uH | |
| L206 | 1-408-968-21 | INDUCTOR 6.8uH | |
| L801 | 1-408-975-21 | INDUCTOR 27uH | |
| L805 | 1-408-974-21 | INDUCTOR 22uH | |
| L806 | 1-408-979-21 | INDUCTOR 56uH | |

< TRANSISTOR >

| Ref. No. | Part No. | Description | Remark |
|---|---|---|---|
| Q201 | 8-729-100-66 | TRANSISTOR 2SC1623 | |
| Q202 | 8-729-100-66 | TRANSISTOR 2SC1623 | |
| Q203 | 8-729-100-66 | TRANSISTOR 2SC1623 | |
| Q204 | 8-729-100-66 | TRANSISTOR 2SC1623 | |
| Q205 | 8-729-100-66 | TRANSISTOR 2SC1623 | |
| Q206 | 8-729-100-66 | TRANSISTOR 2SC1623 | |
| Q207 | 8-729-100-66 | TRANSISTOR 2SC1623 | |

## YC-106

| Ref. No. | Part No. | Description | | Remark |
|---|---|---|---|---|
| Q208 | 8-729-100-66 | TRANSISTOR | 2SC1623 | |
| Q209 | 8-729-100-66 | TRANSISTOR | 2SC1623 | |
| Q210 | 8-729-100-66 | TRANSISTOR | 2SC1623 | |
| Q601 | 8-729-100-66 | TRANSISTOR | 2SC1623 | |
| Q602 | 8-729-216-22 | TRANSISTOR | 2SA1162 | |
| Q603 | 8-729-100-66 | TRANSISTOR | 2SC1623 | |
| Q604 | 8-729-100-66 | TRANSISTOR | 2SC1623 | |
| Q605 | 8-729-216-22 | TRANSISTOR | 2SA1162 | |
| Q606 | 8-729-100-66 | TRANSISTOR | 2SC1623 | |
| Q607 | 8-729-216-22 | TRANSISTOR | 2SA1162 | |
| Q609 | 8-729-216-22 | TRANSISTOR | 2SA1162 | |
| Q610 | 8-729-216-22 | TRANSISTOR | 2SA1162 | |
| Q611 | 8-729-216-22 | TRANSISTOR | 2SA1162 | |
| Q801 | 8-729-100-66 | TRANSISTOR | 2SC1623 | |
| Q802 | 8-729-100-66 | TRANSISTOR | 2SC1623 | |
| Q803 | 8-729-100-66 | TRANSISTOR | 2SC1623 | |
| Q804 | 8-729-100-66 | TRANSISTOR | 2SC1623 | |
| Q805 | 8-729-100-66 | TRANSISTOR | 2SC1623 | |
| Q806 | 8-729-100-66 | TRANSISTOR | 2SC1623 | |
| Q807 | 8-729-100-66 | TRANSISTOR | 2SC1623 | |
| Q808 | 8-729-100-66 | TRANSISTOR | 2SC1623 | |
| Q809 | 8-729-100-66 | TRANSISTOR | 2SC1623 | |
| Q810 | 8-729-100-66 | TRANSISTOR | 2SC1623 | |
| Q811 | 8-729-100-66 | TRANSISTOR | 2SC1623 | |
| Q812 | 8-729-100-66 | TRANSISTOR | 2SC1623 | |
| Q813 | 8-729-100-66 | TRANSISTOR | 2SC1623 | |

< RESISTOR >

| Ref. No. | Part No. | Description | | | | Remark |
|---|---|---|---|---|---|---|
| R201 | 1-216-025-00 | METAL CHIP | 100 | 5% | 1/10W | |
| R202 | 1-216-077-00 | METAL CHIP | 15K | 5% | 1/10W | |
| R203 | 1-216-081-00 | METAL CHIP | 22K | 5% | 1/10W | |
| R204 | 1-216-029-00 | METAL CHIP | 150 | 5% | 1/10W | |
| R205 | 1-216-041-00 | METAL CHIP | 470 | 5% | 1/10W | |
| R206 | 1-216-049-00 | METAL CHIP | 1K | 5% | 1/10W | |
| R207 | 1-216-049-00 | METAL CHIP | 1K | 5% | 1/10W | |
| R208 | 1-216-119-00 | METAL CHIP | 820K | 5% | 1/10W | |
| R209 | 1-216-077-00 | METAL CHIP | 15K | 5% | 1/10W | |
| R210 | 1-216-077-00 | METAL CHIP | 15K | 5% | 1/10W | |
| R211 | 1-216-085-00 | METAL CHIP | 33K | 5% | 1/10W | |
| R212 | 1-216-089-00 | METAL CHIP | 47K | 5% | 1/10W | |
| R213 | 1-216-113-00 | METAL CHIP | 470K | 5% | 1/10W | |
| R214 | 1-216-053-00 | METAL CHIP | 1.5K | 5% | 1/10W | |
| R215 | 1-216-025-00 | METAL CHIP | 100 | 5% | 1/10W | |
| R216 | 1-216-021-00 | METAL CHIP | 68 | 5% | 1/10W | |
| R217 | 1-216-057-00 | METAL CHIP | 2.2K | 5% | 1/10W | |
| R218 | 1-216-748-11 | METAL CHIP | 39K | 1% | 1/10W | |
| R219 | 1-216-057-00 | METAL CHIP | 2.2K | 5% | 1/10W | |
| R220 | 1-216-095-00 | METAL CHIP | 82K | 5% | 1/10W | |
| R221 | 1-216-049-00 | METAL CHIP | 1K | 5% | 1/10W | |
| R222 | 1-216-077-00 | METAL CHIP | 15K | 5% | 1/10W | |
| R223 | 1-216-081-00 | METAL CHIP | 22K | 5% | 1/10W | |
| R224 | 1-216-057-00 | METAL CHIP | 2.2K | 5% | 1/10W | |
| R225 | 1-216-049-00 | METAL CHIP | 1K | 5% | 1/10W | |
| R226 | 1-216-051-00 | METAL CHIP | 1.2K | 5% | 1/10W | |
| R227 | 1-216-079-00 | METAL CHIP | 18K | 5% | 1/10W | |
| R228 | 1-216-069-00 | METAL CHIP | 6.8K | 5% | 1/10W | |
| R229 | 1-216-049-00 | METAL CHIP | 1K | 5% | 1/10W | |
| R230 | 1-216-039-00 | METAL CHIP | 390 | 5% | 1/10W | |
| R231 | 1-216-057-00 | METAL CHIP | 2.2K | 5% | 1/10W | |
| R232 | 1-216-081-00 | METAL CHIP | 22K | 5% | 1/10W | |
| R233 | 1-216-075-00 | METAL CHIP | 12K | 5% | 1/10W | |
| R234 | 1-216-041-00 | METAL CHIP | 470 | 5% | 1/10W | |
| R235 | 1-216-041-00 | METAL CHIP | 470 | 5% | 1/10W | |
| R236 | 1-216-043-00 | METAL CHIP | 560 | 5% | 1/10W | |
| R237 | 1-216-049-00 | METAL CHIP | 1K | 5% | 1/10W | |
| R238 | 1-216-081-00 | METAL CHIP | 22K | 5% | 1/10W | |
| R239 | 1-216-075-00 | METAL CHIP | 12K | 5% | 1/10W | |
| R240 | 1-216-049-00 | METAL CHIP | 1K | 5% | 1/10W | |
| R241 | 1-216-075-00 | METAL CHIP | 12K | 5% | 1/10W | |
| R242 | 1-216-079-00 | METAL CHIP | 18K | 5% | 1/10W | |
| R243 | 1-216-041-00 | METAL CHIP | 470 | 5% | 1/10W | |
| R244 | 1-216-041-00 | METAL CHIP | 470 | 5% | 1/10W | |
| R245 | 1-216-043-00 | METAL CHIP | 560 | 5% | 1/10W | |
| R246 | 1-216-049-00 | METAL CHIP | 1K | 5% | 1/10W | |
| R247 | 1-216-079-00 | METAL CHIP | 18K | 5% | 1/10W | |
| R248 | 1-216-075-00 | METAL CHIP | 12K | 5% | 1/10W | |
| R249 | 1-216-057-00 | METAL CHIP | 2.2K | 5% | 1/10W | |
| R250 | 1-216-085-00 | METAL CHIP | 33K | 5% | 1/10W | |
| R251 | 1-216-081-00 | METAL CHIP | 22K | 5% | 1/10W | |
| R252 | 1-216-081-00 | METAL CHIP | 22K | 5% | 1/10W | |
| R253 | 1-216-295-00 | METAL CHIP | 0 | 5% | 1/10W | |
| R254 | 1-216-295-00 | METAL CHIP | 0 | 5% | 1/10W | |
| R255 | 1-216-295-00 | METAL CHIP | 0 | 5% | 1/10W | |
| R256 | 1-216-295-00 | METAL CHIP | 0 | 5% | 1/10W | |
| R257 | 1-216-097-00 | METAL CHIP | 100K | 5% | 1/10W | |
| R258 | 1-216-295-00 | METAL CHIP | 0 | 5% | 1/10W | |
| R260 | 1-216-295-00 | METAL CHIP | 0 | 5% | 1/10W | |
| R603 | 1-216-037-00 | METAL CHIP | 330 | 5% | 1/10W | |
| R604 | 1-216-038-00 | METAL CHIP | 360 | 5% | 1/10W | |
| R605 | 1-216-043-00 | METAL CHIP | 560 | 5% | 1/10W | |
| R606 | 1-216-013-00 | METAL CHIP | 33 | 5% | 1/10W | |
| R607 | 1-216-041-00 | METAL CHIP | 470 | 5% | 1/10W | |
| R608 | 1-216-053-00 | METAL CHIP | 1.5K | 5% | 1/10W | |
| R609 | 1-216-025-00 | METAL CHIP | 100 | 5% | 1/10W | |
| R610 | 1-216-057-00 | METAL CHIP | 2.2K | 5% | 1/10W | |
| R611 | 1-216-049-00 | METAL CHIP | 1K | 5% | 1/10W | |
| R612 | 1-216-053-00 | METAL CHIP | 1.5K | 5% | 1/10W | |

| Ref. No. | Part No. | Description | | | Remark |
|---|---|---|---|---|---|
| R613 | 1-216-049-00 | METAL CHIP | 1K | 5% | 1/10W |
| R614 | 1-216-049-00 | METAL CHIP | 1K | 5% | 1/10W |
| R619 | 1-216-049-00 | METAL CHIP | 1K | 5% | 1/10W |
| R620 | 1-216-049-00 | METAL CHIP | 1K | 5% | 1/10W |
| R621 | 1-216-049-00 | METAL CHIP | 1K | 5% | 1/10W |
| R622 | 1-216-049-00 | METAL CHIP | 1K | 5% | 1/10W |
| R623 | 1-216-025-00 | METAL CHIP | 100 | 5% | 1/10W |
| R624 | 1-216-033-00 | METAL CHIP | 220 | 5% | 1/10W |
| R625 | 1-216-061-00 | METAL CHIP | 3.3K | 5% | 1/10W |
| R626 | 1-216-061-00 | METAL CHIP | 3.3K | 5% | 1/10W |
| R627 | 1-216-033-00 | METAL CHIP | 220 | 5% | 1/10W |
| R628 | 1-216-065-00 | METAL CHIP | 4.7K | 5% | 1/10W |
| R629 | 1-216-035-00 | METAL CHIP | 270 | 5% | 1/10W |
| R630 | 1-216-081-00 | METAL CHIP | 22K | 5% | 1/10W |
| R631 | 1-216-081-00 | METAL CHIP | 22K | 5% | 1/10W |
| R633 | 1-216-081-00 | METAL CHIP | 22K | 5% | 1/10W |
| R634 | 1-216-081-00 | METAL CHIP | 22K | 5% | 1/10W |
| R635 | 1-216-073-00 | METAL CHIP | 10K | 5% | 1/10W |
| R638 | 1-216-295-00 | METAL CHIP | 0 | 5% | 1/10W |
| R639 | 1-216-295-00 | METAL CHIP | 0 | 5% | 1/10W |
| R642 | 1-216-295-00 | METAL CHIP | 0 | 5% | 1/10W |
| R645 | 1-216-295-00 | METAL CHIP | 0 | 5% | 1/10W |
| R646 | 1-216-041-00 | METAL CHIP | 470 | 5% | 1/10W |
| R647 | 1-216-121-00 | METAL CHIP | 1M | 5% | 1/10W |
| R801 | 1-216-097-00 | METAL CHIP | 100K | 5% | 1/10W |
| R802 | 1-216-097-00 | METAL CHIP | 100K | 5% | 1/10W |
| R803 | 1-216-097-00 | METAL CHIP | 100K | 5% | 1/10W |
| R804 | 1-216-097-00 | METAL CHIP | 100K | 5% | 1/10W |
| R805 | 1-216-089-00 | METAL CHIP | 47K | 5% | 1/10W |
| R806 | 1-216-081-00 | METAL CHIP | 22K | 5% | 1/10W |
| R807 | 1-216-077-00 | METAL CHIP | 15K | 5% | 1/10W |
| R808 | 1-216-025-00 | METAL CHIP | 100 | 5% | 1/10W |
| R809 | 1-216-041-00 | METAL CHIP | 470 | 5% | 1/10W |
| R810 | 1-216-057-00 | METAL CHIP | 2.2K | 5% | 1/10W |
| R811 | 1-216-049-00 | METAL CHIP | 1K | 5% | 1/10W |
| R812 | 1-216-051-00 | METAL CHIP | 1.2K | 5% | 1/10W |
| R813 | 1-216-081-00 | METAL CHIP | 22K | 5% | 1/10W |
| R814 | 1-216-077-00 | METAL CHIP | 15K | 5% | 1/10W |
| R815 | 1-216-057-00 | METAL CHIP | 2.2K | 5% | 1/10W |
| R816 | 1-216-041-00 | METAL CHIP | 470 | 5% | 1/10W |
| R817 | 1-216-295-00 | METAL CHIP | 0 | 5% | 1/10W |
| R818 | 1-216-075-00 | METAL CHIP | 12K | 5% | 1/10W |
| R819 | 1-216-079-00 | METAL CHIP | 18K | 5% | 1/10W |
| R820 | 1-216-295-00 | METAL CHIP | 0 | 5% | 1/10W |
| R821 | 1-216-041-00 | METAL CHIP | 470 | 5% | 1/10W |
| R823 | 1-216-041-00 | METAL CHIP | 470 | 5% | 1/10W |
| R824 | 1-216-043-00 | METAL CHIP | 560 | 5% | 1/10W |
| R825 | 1-216-043-00 | METAL CHIP | 560 | 5% | 1/10W |
| R826 | 1-216-075-00 | METAL CHIP | 12K | 5% | 1/10W |

| Ref. No. | Part No. | Description | | | Remark |
|---|---|---|---|---|---|
| R827 | 1-216-079-00 | METAL CHIP | 18K | 5% | 1/10W |
| R828 | 1-216-059-00 | METAL CHIP | 2.7K | 5% | 1/10W |
| R829 | 1-216-049-00 | METAL CHIP | 1K | 5% | 1/10W |
| R830 | 1-216-051-00 | METAL CHIP | 1.2K | 5% | 1/10W |
| R831 | 1-216-079-00 | METAL CHIP | 18K | 5% | 1/10W |
| R832 | 1-216-075-00 | METAL CHIP | 12K | 5% | 1/10W |
| R833 | 1-216-295-00 | METAL CHIP | 0 | 5% | 1/10W |
| R834 | 1-216-041-00 | METAL CHIP | 470 | 5% | 1/10W |
| R836 | 1-216-041-00 | METAL CHIP | 470 | 5% | 1/10W |
| R837 | 1-216-043-00 | METAL CHIP | 560 | 5% | 1/10W |
| R838 | 1-216-043-00 | METAL CHIP | 560 | 5% | 1/10W |
| R839 | 1-216-079-00 | METAL CHIP | 18K | 5% | 1/10W |
| R840 | 1-216-075-00 | METAL CHIP | 12K | 5% | 1/10W |
| R841 | 1-216-059-00 | METAL CHIP | 2.7K | 5% | 1/10W |
| R842 | 1-216-049-00 | METAL CHIP | 1K | 5% | 1/10W |
| R843 | 1-216-079-00 | METAL CHIP | 18K | 5% | 1/10W |
| R844 | 1-216-025-00 | METAL CHIP | 100 | 5% | 1/10W |
| R845 | 1-216-079-00 | METAL CHIP | 18K | 5% | 1/10W |
| R846 | 1-216-049-00 | METAL CHIP | 1K | 5% | 1/10W |
| R847 | 1-216-077-00 | METAL CHIP | 15K | 5% | 1/10W |
| R848 | 1-216-081-00 | METAL CHIP | 22K | 5% | 1/10W |
| R849 | 1-216-025-00 | METAL CHIP | 100 | 5% | 1/10W |
| R850 | 1-216-049-00 | METAL CHIP | 1K | 5% | 1/10W |
| R851 | 1-216-049-00 | METAL CHIP | 1K | 5% | 1/10W |
| R852 | 1-216-051-00 | METAL CHIP | 1.2K | 5% | 1/10W |
| R853 | 1-216-079-00 | METAL CHIP | 18K | 5% | 1/10W |
| R854 | 1-216-075-00 | METAL CHIP | 12K | 5% | 1/10W |
| R855 | 1-216-295-00 | METAL CHIP | 0 | 5% | 1/10W |
| R856 | 1-216-041-00 | METAL CHIP | 470 | 5% | 1/10W |
| R858 | 1-216-041-00 | METAL CHIP | 470 | 5% | 1/10W |
| R859 | 1-216-043-00 | METAL CHIP | 560 | 5% | 1/10W |
| R860 | 1-216-043-00 | METAL CHIP | 560 | 5% | 1/10W |
| R861 | 1-216-079-00 | METAL CHIP | 18K | 5% | 1/10W |
| R862 | 1-216-075-00 | METAL CHIP | 12K | 5% | 1/10W |
| R863 | 1-216-059-00 | METAL CHIP | 2.7K | 5% | 1/10W |
| R866 | 1-216-085-00 | METAL CHIP | 33K | 5% | 1/10W |

< VARIABLE RESISTOR >

| | | |
|---|---|---|
| RV601 | 1-230-522-11 | RES, ADJ, METAL 4.7K |
| RV602 | 1-230-522-11 | RES, ADJ, METAL 4.7K |

< VIBRATOR >

| | | |
|---|---|---|
| X201 | 1-567-733-11 | VIBRATOR, CRYSTAL |

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# YX-2 (P)

| Ref.No | Part No. | Description | | | Remark |
|---|---|---|---|---|---|
| * | A-7062-845-A | YX-2 (P) BOARD, COMPLETE | | | |
| | | ************************ | | | |
| | | (Ref.No 11,000 Series) | | | |
| | 7-685-646-79 | SCREW +BVTP 3X8 TYPE 2, IT-3 | | | |
| | 7-685-646-79 | SCREW +BVTP 3X8 TYPE 2 | | | |
| | | CAPACITOR | | | |
| C001 | 1-124-589-11 | ELECT | 47MF | 20% | 10V |
| C002 | 1-163-091-00 | CERAMIC CHIP | 8PF | 0.25PF | 50V |
| C003 | 1-163-109-00 | CERAMIC CHIP | 47PF | 5% | 50V |
| C004 | 1-163-101-00 | CERAMIC CHIP | 22PF | 5% | 50V |
| C005 | 1-163-101-00 | CERAMIC CHIP | 22PF | 5% | 50V |
| C006 | 1-124-589-11 | ELECT | 47MF | 20% | 10V |
| C007 | 1-163-091-00 | CERAMIC CHIP | 8PF | 0.25PF | 50V |
| C008 | 1-163-109-00 | CERAMIC CHIP | 47PF | 5% | 50V |
| C009 | 1-163-101-00 | CERAMIC CHIP | 22PF | 5% | 50V |
| C010 | 1-163-101-00 | CERAMIC CHIP | 22PF | 5% | 50V |
| C011 | 1-124-589-11 | ELECT | 47MF | 20% | 10V |
| C012 | 1-124-589-11 | ELECT | 47MF | 20% | 10V |
| C013 | 1-164-232-11 | CERAMIC CHIP | 0.01MF | 10% | 50V |
| C015 | 1-126-157-11 | ELECT | 10MF | 20% | 10V |
| C016 | 1-124-225-00 | ELECT | 100MF | 20% | 6.3V |
| C017 | 1-124-589-11 | ELECT | 47MF | 20% | 10V |
| C018 | 1-163-103-00 | CERAMIC CHIP | 27PF | 5% | 50V |
| C019 | 1-163-035-00 | CERAMIC CHIP | 0.047MF | | 50V |
| C020 | 1-126-157-11 | ELECT | 10MF | 20% | 10V |
| C021 | 1-126-157-11 | ELECT | 10MF | 20% | 10V |
| C022 | 1-126-157-11 | ELECT | 10MF | 20% | 10V |
| C023 | 1-124-589-11 | ELECT | 47MF | 20% | 10V |
| C024 | 1-164-232-11 | CERAMIC CHIP | 0.01MF | 10% | 50V |
| C025 | 1-163-105-00 | CERAMIC CHIP | 33PF | 5% | 50V |
| C026 | 1-124-225-00 | ELECT | 100MF | 20% | 6.3V |
| C028 | 1-126-157-11 | ELECT | 10MF | 20% | 10V |
| C029 | 1-124-225-00 | ELECT | 100MF | 20% | 6.3V |
| C031 | 1-126-157-11 | ELECT | 10MF | 20% | 10V |
| C032 | 1-126-157-11 | ELECT | 10MF | 20% | 10V |
| C033 | 1-164-232-11 | CERAMIC CHIP | 0.01MF | 10% | 50V |
| C034 | 1-124-589-11 | ELECT | 47MF | 20% | 10V |
| C035 | 1-163-035-00 | CERAMIC CHIP | 0.047MF | | 50V |
| C036 | 1-163-091-00 | CERAMIC CHIP | 8PF | 0.25PF | 50V |
| C037 | 1-163-109-00 | CERAMIC CHIP | 47PF | 5% | 50V |
| C038 | 1-163-101-00 | CERAMIC CHIP | 22PF | 5% | 50V |
| C039 | 1-163-101-00 | CERAMIC CHIP | 22PF | 5% | 50V |
| C040 | 1-124-589-11 | ELECT | 47MF | 20% | 10V |
| C041 | 1-163-035-00 | CERAMIC CHIP | 0.047MF | | 50V |
| C043 | 1-126-157-11 | ELECT | 10MF | 20% | 10V |
| C044 | 1-126-157-11 | ELECT | 10MF | 20% | 10V |
| C045 | 1-126-157-11 | ELECT | 10MF | 20% | 10V |
| C046 | 1-126-157-11 | ELECT | 10MF | 20% | 10V |
| C047 | 1-124-589-11 | ELECT | 47MF | 20% | 10V |
| C048 | 1-164-232-11 | CERAMIC CHIP | 0.01MF | 10% | 50V |
| C049 | 1-126-157-11 | ELECT | 10MF | 20% | 10V |
| C052 | 1-163-035-00 | CERAMIC CHIP | 0.047MF | | 50V |
| C053 | 1-126-157-11 | ELECT | 10MF | 20% | 10V |
| C054 | 1-126-157-11 | ELECT | 10MF | 20% | 10V |
| C056 | 1-126-157-11 | ELECT | 10MF | 20% | 10V |
| C057 | 1-163-009-11 | CERAMIC CHIP | 0.001MF | 10% | 50V |
| C058 | 1-163-133-00 | CERAMIC CHIP | 470PF | 5% | 50V |
| C059 | 1-163-035-00 | CERAMIC CHIP | 0.047MF | | 50V |
| C060 | 1-124-589-11 | ELECT | 47MF | 20% | 10V |
| C061 | 1-124-589-11 | ELECT | 47MF | 20% | 10V |
| C062 | 1-164-232-11 | CERAMIC CHIP | 0.01MF | 10% | 50V |
| C063 | 1-126-157-11 | ELECT | 10MF | 20% | 10V |
| C064 | 1-163-035-00 | CERAMIC CHIP | 0.047MF | | 50V |
| C201 | 1-164-232-11 | CERAMIC CHIP | 0.01MF | 10% | 50V |
| C202 | 1-124-584-00 | ELECT | 100MF | 20% | 10V |
| C203 | 1-124-589-11 | ELECT | 47MF | 20% | 10V |
| C204 | 1-163-035-00 | CERAMIC CHIP | 0.047MF | | 50V |
| C205 | 1-164-633-11 | CERAMIC CHIP | 0.1MF | 10% | 25V |
| C206 | 1-124-589-11 | ELECT | 47MF | 20% | 10V |
| C207 | 1-164-232-11 | CERAMIC CHIP | 0.01MF | 10% | 50V |
| C208 | 1-164-232-11 | CERAMIC CHIP | 0.01MF | 10% | 50V |
| C209 | 1-164-232-11 | CERAMIC CHIP | 0.01MF | 10% | 50V |
| C210 | 1-124-589-11 | ELECT | 47MF | 20% | 10V |
| C211 | 1-164-232-11 | CERAMIC CHIP | 0.01MF | 10% | 50V |
| C212 | 1-163-133-00 | CERAMIC CHIP | 470PF | 5% | 50V |
| C213 | 1-163-035-00 | CERAMIC CHIP | 0.047MF | | 50V |
| C214 | 1-124-589-11 | ELECT | 47MF | 20% | 10V |
| C215 | 1-164-232-11 | CERAMIC CHIP | 0.01MF | 10% | 50V |
| C216 | 1-126-157-11 | ELECT | 10MF | 20% | 10V |
| C218 | 1-163-093-00 | CERAMIC CHIP | 10PF | 5% | 50V |
| C219 | 1-163-035-00 | CERAMIC CHIP | 0.047MF | | 50V |
| C220 | 1-124-589-11 | ELECT | 47MF | 20% | 10V |
| C221 | 1-124-589-11 | ELECT | 47MF | 20% | 10V |
| C222 | 1-164-232-11 | CERAMIC CHIP | 0.01MF | 10% | 50V |
| C224 | 1-124-225-00 | ELECT | 100MF | 20% | 6.3V |
| C225 | 1-124-225-00 | ELECT | 100MF | 20% | 6.3V |
| C226 | 1-163-101-00 | CERAMIC CHIP | 22PF | 5% | 50V |
| C227 | 1-163-009-11 | CERAMIC CHIP | 0.001MF | 10% | 50V |
| C228 | 1-124-589-11 | ELECT | 47MF | 20% | 10V |
| C230 | 1-126-157-11 | ELECT | 10MF | 20% | 10V |
| C231 | 1-124-589-11 | ELECT | 47MF | 20% | 10V |
| C232 | 1-164-232-11 | CERAMIC CHIP | 0.01MF | 10% | 50V |
| C233 | 1-124-589-11 | ELECT | 47MF | 20% | 10V |
| C234 | 1-163-035-00 | CERAMIC CHIP | 0.047MF | | 50V |
| C235 | 1-163-097-00 | CERAMIC CHIP | 15PF | 5% | 50V |
| C236 | 1-126-157-11 | ELECT | 10MF | 20% | 10V |
| C237 | 1-163-035-00 | CERAMIC CHIP | 0.047MF | | 50V |
| C238 | 1-163-035-00 | CERAMIC CHIP | 0.047MF | | 50V |
| C239 | 1-124-589-11 | ELECT | 47MF | 20% | 10V |
| C240 | 1-164-232-11 | CERAMIC CHIP | 0.01MF | 10% | 50V |
| C241 | 1-126-157-11 | ELECT | 10MF | 20% | 10V |
| C242 | 1-164-232-11 | CERAMIC CHIP | 0.01MF | 10% | 50V |
| C243 | 1-164-232-11 | CERAMIC CHIP | 0.01MF | 10% | 50V |
| C244 | 1-126-157-11 | ELECT | 10MF | 20% | 10V |

| Ref.No | Part No. | Description | | Remark |
|---|---|---|---|---|
| C245 | 1-126-157-11 | ELECT 10MF | 20% | 10V |
| C246 | 1-124-589-11 | ELECT 47MF | 20% | 10V |
| C247 | 1-163-035-00 | CERAMIC CHIP 0.047MF | | 50V |
| C248 | 1-164-232-11 | CERAMIC CHIP 0.01MF | 10% | 50V |
| C249 | 1-124-589-11 | ELECT 47MF | 20% | 10V |
| C250 | 1-124-589-11 | ELECT 47MF | 20% | 10V |
| C251 | 1-164-232-11 | CERAMIC CHIP 0.01MF | 10% | 50V |
| C252 | 1-124-589-11 | ELECT 47MF | 20% | 10V |
| C253 | 1-164-232-11 | CERAMIC CHIP 0.01MF | 10% | 50V |
| C254 | 1-126-157-11 | ELECT 10MF | 20% | 10V |
| C255 | 1-164-232-11 | CERAMIC CHIP 0.01MF | 10% | 50V |
| C256 | 1-164-232-11 | CERAMIC CHIP 0.01MF | 10% | 50V |
| C257 | 1-124-225-00 | ELECT 100MF | 20% | 6.3V |
| C258 | 1-126-157-11 | ELECT 10MF | 20% | 10V |
| C259 | 1-164-232-11 | CERAMIC CHIP 0.01MF | 10% | 50V |
| C260 | 1-163-035-00 | CERAMIC CHIP 0.047MF | | 50V |
| C261 | 1-164-232-11 | CERAMIC CHIP 0.01MF | 10% | 50V |
| C262 | 1-126-157-11 | ELECT 10MF | 20% | 10V |
| C263 | 1-163-035-00 | CERAMIC CHIP 0.047MF | | 50V |

### CONNECTOR

| | | |
|---|---|---|
| CN001 | 1-506-486-11 | PIN, CONNECTOR 7P |
| CN002 | 1-506-485-11 | PIN, CONNECTOR 6P |
| CN003 | 1-506-483-21 | PIN, CONNECTOR 4P |
| CN004 | 1-506-472-11 | PIN, CONNECTOR 7P |
| CN005 | 1-506-471-11 | PIN, CONNECTOR 6P |

### DIODE

| | | |
|---|---|---|
| D201 | 8-719-400-18 | DIODE 1S2836 |
| D202 | 8-719-104-34 | DIODE MA152WK |

### FILTER

| | | |
|---|---|---|
| FL001 | 1-415-637-11 | DL (LC) |
| FL002 | 1-415-637-11 | DL (LC) |
| FL003 | 1-415-637-11 | DL (LC) |
| FL201 | 1-415-821-11 | DELAY LINE |
| FL202 | 1-415-821-11 | DELAY LINE |
| FL203 | 1-415-821-11 | DELAY LINE |
| FL205 | 1-415-551-11 | DELAY LINE |
| FL207 | 1-235-617-11 | FILTER, LOW PASS |

### IC

| | | |
|---|---|---|
| IC001 | 8-759-200-60 | IC TA7060AP |
| IC002 | 8-759-200-60 | IC TA7060AP |
| IC003 | 8-759-400-06 | IC AN608P |
| IC004 | 8-759-009-10 | IC MC14069UBF |
| IC005 | 8-759-009-10 | IC MC14069UBF |
| IC201 | 8-759-200-60 | IC TA7060AP |
| IC202 | 8-759-402-33 | IC AN607P |
| IC203 | 8-752-201-30 | IC CX22013 |
| IC204 | 8-759-969-13 | IC SN16913P |
| IC205 | 8-759-101-12 | IC UPC311G2 |
| IC206 | 8-759-710-07 | IC NJM2234M |

| Ref.No | Part No. | Description | Remark |
|---|---|---|---|
| IC207 | 8-759-710-07 | IC NJM2234M | |

### COIL

| | | | |
|---|---|---|---|
| L001 | 1-408-974-21 | INDUCTOR | 22UH |
| L002 | 1-408-962-21 | INDUCTOR | 2.2UH |
| L003 | 1-408-962-21 | INDUCTOR | 2.2UH |
| L004 | 1-408-989-21 | INDUCTOR | 470UH |
| L005 | 1-408-962-21 | INDUCTOR | 2.2UH |
| L006 | 1-410-071-11 | INDUCTOR | 10MMH |
| L009 | 1-408-979-21 | INDUCTOR | 56UH |
| L201 | 1-408-979-21 | INDUCTOR | 56UH |
| L202 | 1-408-979-21 | INDUCTOR | 56UH |
| L204 | 1-408-964-21 | INDUCTOR | 3.3UH |
| L205 | 1-408-979-21 | INDUCTOR | 56UH |
| L206 | 1-408-979-21 | INDUCTOR | 56UH |
| L207 | 1-408-979-21 | INDUCTOR | 56UH |
| L208 | 1-408-979-21 | INDUCTOR | 56UH |

### TRANSISTOR

| | | |
|---|---|---|
| Q001 | 8-729-100-66 | TRANSISTOR 2SC1623 |
| Q002 | 8-729-100-66 | TRANSISTOR 2SC1623 |
| Q003 | 8-729-901-06 | TRANSISTOR DTA144EK |
| Q004 | 8-729-100-66 | TRANSISTOR 2SC1623 |
| Q005 | 8-729-100-66 | TRANSISTOR 2SC1623 |
| Q006 | 8-729-100-66 | TRANSISTOR 2SC1623 |
| Q007 | 8-729-100-66 | TRANSISTOR 2SC1623 |
| Q008 | 8-729-100-66 | TRANSISTOR 2SC1623 |
| Q009 | 8-729-100-66 | TRANSISTOR 2SC1623 |
| Q010 | 8-729-100-66 | TRANSISTOR 2SC1623 |
| Q011 | 8-729-100-66 | TRANSISTOR 2SC1623 |
| Q012 | 8-729-100-66 | TRANSISTOR 2SC1623 |
| Q013 | 8-729-100-66 | TRANSISTOR 2SC1623 |
| Q014 | 8-729-100-66 | TRANSISTOR 2SC1623 |
| Q015 | 8-729-100-66 | TRANSISTOR 2SC1623 |
| Q016 | 8-729-901-01 | TRANSISTOR DTC144EK |
| Q017 | 8-729-100-66 | TRANSISTOR 2SC1623 |
| Q018 | 8-729-100-66 | TRANSISTOR 2SC1623 |
| Q019 | 8-729-100-66 | TRANSISTOR 2SC1623 |
| Q020 | 8-729-100-66 | TRANSISTOR 2SC1623 |
| Q021 | 8-729-100-66 | TRANSISTOR 2SC1623 |
| Q022 | 8-729-100-66 | TRANSISTOR 2SC1623 |
| Q023 | 8-729-100-66 | TRANSISTOR 2SC1623 |
| Q024 | 8-729-100-66 | TRANSISTOR 2SC1623 |
| Q025 | 8-729-100-66 | TRANSISTOR 2SC1623 |
| Q026 | 8-729-100-66 | TRANSISTOR 2SC1623 |
| Q027 | 8-729-901-06 | TRANSISTOR DTA144EK |
| Q028 | 8-729-100-66 | TRANSISTOR 2SC1623 |
| Q029 | 8-729-100-66 | TRANSISTOR 2SC1623 |
| Q030 | 8-729-100-66 | TRANSISTOR 2SC1623 |
| Q031 | 8-729-100-66 | TRANSISTOR 2SC1623 |
| Q032 | 8-729-100-66 | TRANSISTOR 2SC1623 |
| Q033 | 8-729-100-66 | TRANSISTOR 2SC1623 |

## YX-2 (P)

| Ref.No | Part No. | Description | Remark |
|---|---|---|---|
| Q034 | 8-729-100-66 | TRANSISTOR 2SC1623 | |
| Q035 | 8-729-100-66 | TRANSISTOR 2SC1623 | |
| Q036 | 8-729-901-06 | TRANSISTOR DTA144EK | |
| Q037 | 8-729-901-01 | TRANSISTOR DTC144EK | |
| Q038 | 8-729-901-01 | TRANSISTOR DTC144EK | |
| Q039 | 8-729-901-06 | TRANSISTOR DTA144EK | |
| Q040 | 8-729-901-01 | TRANSISTOR DTC144EK | |
| Q041 | 8-729-901-01 | TRANSISTOR DTC144EK | |
| Q042 | 8-729-901-06 | TRANSISTOR DTA144EK | |
| Q201 | 8-729-100-66 | TRANSISTOR 2SC1623 | |
| Q202 | 8-729-100-66 | TRANSISTOR 2SC1623 | |
| Q203 | 8-729-100-66 | TRANSISTOR 2SC1623 | |
| Q204 | 8-729-100-66 | TRANSISTOR 2SC1623 | |
| Q205 | 8-729-100-66 | TRANSISTOR 2SC1623 | |
| Q206 | 8-729-100-66 | TRANSISTOR 2SC1623 | |
| Q207 | 8-729-100-66 | TRANSISTOR 2SC1623 | |
| Q208 | 8-729-100-66 | TRANSISTOR 2SC1623 | |
| Q209 | 8-729-100-66 | TRANSISTOR 2SC1623 | |
| Q210 | 8-729-100-66 | TRANSISTOR 2SC1623 | |
| Q211 | 8-729-100-66 | TRANSISTOR 2SC1623 | |
| Q212 | 8-729-100-66 | TRANSISTOR 2SC1623 | |
| Q213 | 8-729-100-66 | TRANSISTOR 2SC1623 | |
| Q214 | 8-729-100-66 | TRANSISTOR 2SC1623 | |
| Q215 | 8-729-100-66 | TRANSISTOR 2SC1623 | |
| Q216 | 8-729-100-66 | TRANSISTOR 2SC1623 | |
| Q217 | 8-729-100-66 | TRANSISTOR 2SC1623 | |
| Q218 | 8-729-320-17 | TRANSISTOR 2SA1122CD | |
| Q219 | 8-729-100-66 | TRANSISTOR 2SC1623 | |
| Q220 | 8-729-100-66 | TRANSISTOR 2SC1623 | |
| Q221 | 8-729-320-17 | TRANSISTOR 2SA1122CD | |
| Q222 | 8-729-100-66 | TRANSISTOR 2SC1623 | |
| Q223 | 8-729-100-66 | TRANSISTOR 2SC1623 | |

### RESISTOR

| Ref.No | Part No. | Description | Remark |
|---|---|---|---|
| R001 | 1-216-097-00 | METAL GLAZE 100K 5% 1/10W | |
| R002 | 1-216-079-00 | METAL GLAZE 18K 5% 1/10W | |
| R003 | 1-216-081-00 | METAL GLAZE 22K 5% 1/10W | |
| R004 | 1-216-049-00 | METAL GLAZE 1K 5% 1/10W | |
| R005 | 1-216-071-00 | METAL GLAZE 8.2K 5% 1/10W | |
| R006 | 1-216-049-00 | METAL GLAZE 1K 5% 1/10W | |
| R007 | 1-216-056-00 | METAL GLAZE 2K 5% 1/10W | |
| R008 | 1-216-056-00 | METAL GLAZE 2K 5% 1/10W | |
| R009 | 1-216-047-00 | METAL GLAZE 820 5% 1/10W | |
| R010 | 1-216-295-00 | METAL GLAZE 0 5% 1/10W | |
| R011 | 1-216-049-00 | METAL GLAZE 1K 5% 1/10W | |
| R012 | 1-216-041-00 | METAL GLAZE 470 5% 1/10W | |
| R013 | 1-216-295-00 | METAL GLAZE 0 5% 1/10W | |
| R014 | 1-216-049-00 | METAL GLAZE 1K 5% 1/10W | |
| R015 | 1-216-049-00 | METAL GLAZE 1K 5% 1/10W | |
| R016 | 1-216-079-00 | METAL GLAZE 18K 5% 1/10W | |
| R017 | 1-216-079-00 | METAL GLAZE 18K 5% 1/10W | |
| R018 | 1-216-049-00 | METAL GLAZE 1K 5% 1/10W | |
| R019 | 1-216-071-00 | METAL GLAZE 8.2K 5% 1/10W | |
| R020 | 1-216-049-00 | METAL GLAZE 1K 5% 1/10W | |
| R021 | 1-216-056-00 | METAL GLAZE 2K 5% 1/10W | |
| R022 | 1-216-056-00 | METAL GLAZE 2K 5% 1/10W | |
| R023 | 1-216-047-00 | METAL GLAZE 820 5% 1/10W | |
| R024 | 1-216-295-00 | METAL GLAZE 0 5% 1/10W | |
| R025 | 1-216-049-00 | METAL GLAZE 1K 5% 1/10W | |
| R026 | 1-216-295-00 | METAL GLAZE 0 5% 1/10W | |
| R027 | 1-216-049-00 | METAL GLAZE 1K 5% 1/10W | |
| R028 | 1-216-057-00 | METAL GLAZE 2.2K 5% 1/10W | |
| R029 | 1-216-057-00 | METAL GLAZE 2.2K 5% 1/10W | |
| R030 | 1-216-079-00 | METAL GLAZE 18K 5% 1/10W | |
| R031 | 1-216-079-00 | METAL GLAZE 18K 5% 1/10W | |
| R032 | 1-216-049-00 | METAL GLAZE 1K 5% 1/10W | |
| R033 | 1-216-049-00 | METAL GLAZE 1K 5% 1/10W | |
| R034 | 1-216-295-00 | METAL GLAZE 0 5% 1/10W | |
| R035 | 1-216-050-00 | METAL GLAZE 1.1K 5% 1/10W | |
| R036 | 1-216-079-00 | METAL GLAZE 18K 5% 1/10W | |
| R037 | 1-216-079-00 | METAL GLAZE 18K 5% 1/10W | |
| R038 | 1-216-051-00 | METAL GLAZE 1.2K 5% 1/10W | |
| R039 | 1-216-057-00 | METAL GLAZE 2.2K 5% 1/10W | |
| R040 | 1-216-295-00 | METAL GLAZE 0 5% 1/10W | |
| R041 | 1-216-065-00 | METAL GLAZE 4.7K 5% 1/10W | |
| R042 | 1-216-077-00 | METAL GLAZE 15K 5% 1/10W | |
| R043 | 1-216-065-00 | METAL GLAZE 4.7K 5% 1/10W | |
| R044 | 1-216-051-00 | METAL GLAZE 1.2K 5% 1/10W | |
| R045 | 1-216-057-00 | METAL GLAZE 2.2K 5% 1/10W | |
| R046 | 1-216-057-00 | METAL GLAZE 2.2K 5% 1/10W | |
| R047 | 1-216-057-00 | METAL GLAZE 2.2K 5% 1/10W | |
| R048 | 1-216-073-00 | METAL GLAZE 10K 5% 1/10W | |
| R049 | 1-216-073-00 | METAL GLAZE 10K 5% 1/10W | |
| R050 | 1-216-065-00 | METAL GLAZE 4.7K 5% 1/10W | |
| R051 | 1-216-057-00 | METAL GLAZE 2.2K 5% 1/10W | |
| R053 | 1-216-073-00 | METAL GLAZE 10K 5% 1/10W | |
| R054 | 1-216-041-00 | METAL GLAZE 470 5% 1/10W | |
| R055 | 1-216-037-00 | METAL GLAZE 330 5% 1/10W | |
| R056 | 1-216-049-00 | METAL GLAZE 1K 5% 1/10W | |
| R057 | 1-216-049-00 | METAL GLAZE 1K 5% 1/10W | |
| R058 | 1-216-073-00 | METAL GLAZE 10K 5% 1/10W | |
| R059 | 1-216-071-00 | METAL GLAZE 8.2K 5% 1/10W | |
| R060 | 1-216-065-00 | METAL GLAZE 4.7K 5% 1/10W | |
| R061 | 1-216-049-00 | METAL GLAZE 1K 5% 1/10W | |
| R062 | 1-216-037-00 | METAL GLAZE 330 5% 1/10W | |
| R063 | 1-216-041-00 | METAL GLAZE 470 5% 1/10W | |
| R064 | 1-216-073-00 | METAL GLAZE 10K 5% 1/10W | |
| R065 | 1-216-049-00 | METAL GLAZE 1K 5% 1/10W | |
| R066 | 1-216-049-00 | METAL GLAZE 1K 5% 1/10W | |
| R067 | 1-216-049-00 | METAL GLAZE 1K 5% 1/10W | |
| R068 | 1-216-073-00 | METAL GLAZE 10K 5% 1/10W | |
| R069 | 1-216-071-00 | METAL GLAZE 8.2K 5% 1/10W | |
| R070 | 1-216-065-00 | METAL GLAZE 4.7K 5% 1/10W | |
| R071 | 1-216-059-00 | METAL GLAZE 2.7K 5% 1/10W | |
| R072 | 1-216-077-00 | METAL GLAZE 15K 5% 1/10W | |
| R073 | 1-216-073-00 | METAL GLAZE 10K 5% 1/10W | |

| Ref.No | Part No. | Description | | | | Remark |
|---|---|---|---|---|---|---|
| R074 | 1-216-041-00 | METAL GLAZE | 470 | 5% | 1/10W | |
| R075 | 1-216-037-00 | METAL GLAZE | 330 | 5% | 1/10W | |
| R076 | 1-216-043-00 | METAL GLAZE | 560 | 5% | 1/10W | |
| R077 | 1-216-045-00 | METAL GLAZE | 680 | 5% | 1/10W | |
| R078 | 1-216-077-00 | METAL GLAZE | 15K | 5% | 1/10W | |
| R079 | 1-216-073-00 | METAL GLAZE | 10K | 5% | 1/10W | |
| R080 | 1-216-059-00 | METAL GLAZE | 2.7K | 5% | 1/10W | |
| R081 | 1-216-097-00 | METAL GLAZE | 100K | 5% | 1/10W | |
| R082 | 1-216-079-00 | METAL GLAZE | 18K | 5% | 1/10W | |
| R083 | 1-216-081-00 | METAL GLAZE | 22K | 5% | 1/10W | |
| R084 | 1-216-049-00 | METAL GLAZE | 1K | 5% | 1/10W | |
| R085 | 1-216-071-00 | METAL GLAZE | 8.2K | 5% | 1/10W | |
| R086 | 1-216-049-00 | METAL GLAZE | 1K | 5% | 1/10W | |
| R087 | 1-216-056-00 | METAL GLAZE | 2K | 5% | 1/10W | |
| R088 | 1-216-056-00 | METAL GLAZE | 2K | 5% | 1/10W | |
| R089 | 1-216-047-00 | METAL GLAZE | 820 | 5% | 1/10W | |
| R090 | 1-216-295-00 | METAL GLAZE | 0 | 5% | 1/10W | |
| R091 | 1-216-049-00 | METAL GLAZE | 1K | 5% | 1/10W | |
| R092 | 1-216-295-00 | METAL GLAZE | 0 | 5% | 1/10W | |
| R093 | 1-216-049-00 | METAL GLAZE | 1K | 5% | 1/10W | |
| R094 | 1-216-057-00 | METAL GLAZE | 2.2K | 5% | 1/10W | |
| R095 | 1-216-079-00 | METAL GLAZE | 18K | 5% | 1/10W | |
| R096 | 1-216-057-00 | METAL GLAZE | 2.2K | 5% | 1/10W | |
| R097 | 1-216-079-00 | METAL GLAZE | 18K | 5% | 1/10W | |
| R098 | 1-216-049-00 | METAL GLAZE | 1K | 5% | 1/10W | |
| R099 | 1-216-077-00 | METAL GLAZE | 15K | 5% | 1/10W | |
| R100 | 1-216-073-00 | METAL GLAZE | 10K | 5% | 1/10W | |
| R101 | 1-216-041-00 | METAL GLAZE | 470 | 5% | 1/10W | |
| R102 | 1-216-041-00 | METAL GLAZE | 470 | 5% | 1/10W | |
| R103 | 1-216-045-00 | METAL GLAZE | 680 | 5% | 1/10W | |
| R104 | 1-216-043-00 | METAL GLAZE | 560 | 5% | 1/10W | |
| R105 | 1-216-077-00 | METAL GLAZE | 15K | 5% | 1/10W | |
| R106 | 1-216-073-00 | METAL GLAZE | 10K | 5% | 1/10W | |
| R107 | 1-216-059-00 | METAL GLAZE | 2.7K | 5% | 1/10W | |
| R108 | 1-216-077-00 | METAL GLAZE | 15K | 5% | 1/10W | |
| R109 | 1-216-073-00 | METAL GLAZE | 10K | 5% | 1/10W | |
| R110 | 1-216-039-00 | METAL GLAZE | 390 | 5% | 1/10W | |
| R111 | 1-216-041-00 | METAL GLAZE | 470 | 5% | 1/10W | |
| R112 | 1-216-057-00 | METAL GLAZE | 2.2K | 5% | 1/10W | |
| R113 | 1-216-037-00 | METAL GLAZE | 330 | 5% | 1/10W | |
| R116 | 1-216-053-00 | METAL GLAZE | 1.5K | 5% | 1/10W | |
| R117 | 1-216-061-00 | METAL GLAZE | 3.3K | 5% | 1/10W | |
| R118 | 1-216-031-00 | METAL GLAZE | 180 | 5% | 1/10W | |
| R119 | 1-216-057-00 | METAL GLAZE | 2.2K | 5% | 1/10W | |
| R120 | 1-216-077-00 | METAL GLAZE | 15K | 5% | 1/10W | |
| R121 | 1-216-041-00 | METAL GLAZE | 470 | 5% | 1/10W | |
| R122 | 1-216-061-00 | METAL GLAZE | 3.3K | 5% | 1/10W | |
| R123 | 1-216-073-00 | METAL GLAZE | 10K | 5% | 1/10W | |
| R124 | 1-216-051-00 | METAL GLAZE | 1.2K | 5% | 1/10W | |
| R125 | 1-216-093-00 | METAL GLAZE | 68K | 5% | 1/10W | |
| R126 | 1-216-059-00 | METAL GLAZE | 2.7K | 5% | 1/10W | |
| R127 | 1-216-049-00 | METAL GLAZE | 1K | 5% | 1/10W | |
| R128 | 1-216-049-00 | METAL GLAZE | 1K | 5% | 1/10W | |

| Ref.No | Part No. | Description | | | | Remark |
|---|---|---|---|---|---|---|
| R129 | 1-216-081-00 | METAL GLAZE | 22K | 5% | 1/10W | |
| R130 | 1-216-081-00 | METAL GLAZE | 22K | 5% | 1/10W | |
| R201 | 1-216-097-00 | METAL GLAZE | 100K | 5% | 1/10W | |
| R203 | 1-216-081-00 | METAL GLAZE | 22K | 5% | 1/10W | |
| R204 | 1-216-073-00 | METAL GLAZE | 10K | 5% | 1/10W | |
| R205 | 1-216-049-00 | METAL GLAZE | 1K | 5% | 1/10W | |
| R206 | 1-216-036-00 | METAL GLAZE | 300 | 5% | 1/10W | |
| R207 | 1-216-045-00 | METAL GLAZE | 680 | 5% | 1/10W | |
| R208 | 1-216-049-00 | METAL GLAZE | 1K | 5% | 1/10W | |
| R209 | 1-216-041-00 | METAL GLAZE | 470 | 5% | 1/10W | |
| R210 | 1-216-052-00 | METAL GLAZE | 1.3K | 5% | 1/10W | |
| R211 | 1-216-049-00 | METAL GLAZE | 1K | 5% | 1/10W | |
| R212 | 1-216-033-00 | METAL GLAZE | 220 | 5% | 1/10W | |
| R213 | 1-216-049-00 | METAL GLAZE | 1K | 5% | 1/10W | |
| R214 | 1-216-051-00 | METAL GLAZE | 1.2K | 5% | 1/10W | |
| R215 | 1-216-043-00 | METAL GLAZE | 560 | 5% | 1/10W | |
| R216 | 1-216-065-00 | METAL GLAZE | 4.7K | 5% | 1/10W | |
| R218 | 1-216-065-00 | METAL GLAZE | 4.7K | 5% | 1/10W | |
| R219 | 1-216-033-00 | METAL GLAZE | 220 | 5% | 1/10W | |
| R220 | 1-216-033-00 | METAL GLAZE | 220 | 5% | 1/10W | |
| R222 | 1-216-049-00 | METAL GLAZE | 1K | 5% | 1/10W | |
| R223 | 1-216-047-00 | METAL GLAZE | 820 | 5% | 1/10W | |
| R224 | 1-216-295-00 | METAL GLAZE | 0 | 5% | 1/10W | |
| R225 | 1-216-061-00 | METAL GLAZE | 3.3K | 5% | 1/10W | |
| R226 | 1-216-295-00 | METAL GLAZE | 0 | 5% | 1/10W | |
| R227 | 1-216-075-00 | METAL GLAZE | 12K | 5% | 1/10W | |
| R228 | 1-216-081-00 | METAL GLAZE | 22K | 5% | 1/10W | |
| R229 | 1-216-065-00 | METAL GLAZE | 4.7K | 5% | 1/10W | |
| R230 | 1-216-033-00 | METAL GLAZE | 220 | 5% | 1/10W | |
| R231 | 1-216-033-00 | METAL GLAZE | 220 | 5% | 1/10W | |
| R232 | 1-216-049-00 | METAL GLAZE | 1K | 5% | 1/10W | |
| R233 | 1-216-047-00 | METAL GLAZE | 820 | 5% | 1/10W | |
| R235 | 1-216-061-00 | METAL GLAZE | 3.3K | 5% | 1/10W | |
| R236 | 1-216-041-00 | METAL GLAZE | 470 | 5% | 1/10W | |
| R237 | 1-216-041-00 | METAL GLAZE | 470 | 5% | 1/10W | |
| R238 | 1-216-077-00 | METAL GLAZE | 15K | 5% | 1/10W | |
| R239 | 1-216-041-00 | METAL GLAZE | 470 | 5% | 1/10W | |
| R240 | 1-216-035-00 | METAL GLAZE | 270 | 5% | 1/10W | |
| R241 | 1-216-049-00 | METAL GLAZE | 1K | 5% | 1/10W | |
| R242 | 1-216-049-00 | METAL GLAZE | 1K | 5% | 1/10W | |
| R243 | 1-216-295-00 | METAL GLAZE | 0 | 5% | 1/10W | |
| R245 | 1-216-077-00 | METAL GLAZE | 15K | 5% | 1/10W | |
| R246 | 1-216-075-00 | METAL GLAZE | 12K | 5% | 1/10W | |
| R247 | 1-216-049-00 | METAL GLAZE | 1K | 5% | 1/10W | |
| R248 | 1-216-033-00 | METAL GLAZE | 220 | 5% | 1/10W | |
| R249 | 1-216-049-00 | METAL GLAZE | 1K | 5% | 1/10W | |
| R250 | 1-216-051-00 | METAL GLAZE | 1.2K | 5% | 1/10W | |
| R251 | 1-216-075-00 | METAL GLAZE | 12K | 5% | 1/10W | |
| R252 | 1-216-077-00 | METAL GLAZE | 15K | 5% | 1/10W | |
| R253 | 1-216-049-00 | METAL GLAZE | 1K | 5% | 1/10W | |
| R254 | 1-216-097-00 | METAL GLAZE | 100K | 5% | 1/10W | |
| R256 | 1-216-295-00 | METAL GLAZE | 0 | 5% | 1/10W | |

# YX-2 (P)

| Ref.No | Part No. | Description | Remark |
|---|---|---|---|
| R257 | 1-216-295-00 | METAL GLAZE 0 5% 1/10W | |
| R258 | 1-216-075-00 | METAL GLAZE 12K 5% 1/10W | |
| R259 | 1-216-081-00 | METAL GLAZE 22K 5% 1/10W | |
| R260 | 1-216-033-00 | METAL GLAZE 220 5% 1/10W | |
| R261 | 1-216-033-00 | METAL GLAZE 220 5% 1/10W | |
| R262 | 1-216-057-00 | METAL GLAZE 2.2K 5% 1/10W | |
| R263 | 1-216-053-00 | METAL GLAZE 1.5K 5% 1/10W | |
| R264 | 1-216-061-00 | METAL GLAZE 3.3K 5% 1/10W | |
| R265 | 1-216-059-00 | METAL GLAZE 2.7K 5% 1/10W | |
| R266 | 1-216-081-00 | METAL GLAZE 22K 5% 1/10W | |
| R267 | 1-216-073-00 | METAL GLAZE 10K 5% 1/10W | |
| R268 | 1-216-065-00 | METAL GLAZE 4.7K 5% 1/10W | |
| R269 | 1-216-081-00 | METAL GLAZE 22K 5% 1/10W | |
| R270 | 1-216-075-00 | METAL GLAZE 12K 5% 1/10W | |
| R271 | 1-216-049-00 | METAL GLAZE 1K 5% 1/10W | |
| R272 | 1-216-025-00 | METAL GLAZE 100 5% 1/10W | |
| R273 | 1-216-295-00 | METAL GLAZE 0 5% 1/10W | |
| R275 | 1-216-069-00 | METAL GLAZE 6.8K 5% 1/10W | |
| R276 | 1-216-033-00 | METAL GLAZE 220 5% 1/10W | |
| R278 | 1-216-057-00 | METAL GLAZE 2.2K 5% 1/10W | |
| R279 | 1-216-049-00 | METAL GLAZE 1K 5% 1/10W | |
| R280 | 1-216-049-00 | METAL GLAZE 1K 5% 1/10W | |
| R281 | 1-216-073-00 | METAL GLAZE 10K 5% 1/10W | |
| R282 | 1-216-071-00 | METAL GLAZE 8.2K 5% 1/10W | |
| R283 | 1-216-073-00 | METAL GLAZE 10K 5% 1/10W | |
| R284 | 1-216-097-00 | METAL GLAZE 100K 5% 1/10W | |
| R285 | 1-216-097-00 | METAL GLAZE 100K 5% 1/10W | |
| R286 | 1-216-089-00 | METAL GLAZE 47K 5% 1/10W | |
| R287 | 1-216-295-00 | METAL GLAZE 0 5% 1/10W | |
| R288 | 1-216-025-00 | METAL GLAZE 100 5% 1/10W | |
| R297 | 1-216-089-00 | METAL GLAZE 47K 5% 1/10W | |
| R298 | 1-216-065-00 | METAL GLAZE 4.7K 5% 1/10W | |
| R299 | 1-216-089-00 | METAL GLAZE 47K 5% 1/10W | |
| R300 | 1-216-089-00 | METAL GLAZE 47K 5% 1/10W | |
| R301 | 1-216-025-00 | METAL GLAZE 100 5% 1/10W | |
| R302 | 1-216-295-00 | METAL GLAZE 0 5% 1/10W | |
| R303 | 1-216-295-00 | METAL GLAZE 0 5% 1/10W | |
| R306 | 1-216-097-00 | METAL GLAZE 100K 5% 1/10W | |

## VARIABLE RESISTOR

| Ref.No | Part No. | Description | Remark |
|---|---|---|---|
| RV001 | 1-228-520-00 | RES, ADJ, METAL GLAZE 470 | |
| RV002 | 1-228-520-00 | RES, ADJ, METAL GLAZE 470 | |
| RV003 | 1-230-520-11 | RES, ADJ, METAL GLAZE 1K | |
| RV004 | 1-230-520-11 | RES, ADJ, METAL GLAZE 1K | |
| RV202 | 1-230-522-11 | RES, ADJ, METAL GLAZE 4.7K | |
| RV203 | 1 230 521-11 | RES, ADJ, METAL GLAZE 2.2K | |
| RV204 | 1-230-519-11 | RES, ADJ, METAL GLAZE 470 | |
| RV205 | 1-230-519-11 | RES, ADJ, METAL GLAZE 470 | |
| RV206 | 1-230-522-11 | RES, ADJ, METAL GLAZE 4.7K | |

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## MISCELLANEOUS

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| Ref.No | Part No. | Description | Remark |
|---|---|---|---|
| | 1-413-629-21 | SWITCHING BLOCK | |
| | ⚠1-526-920-12 | OUTLET, AC (15A 125V) | |
| | ⚠1-534-517-81 | CORD POWER (10A 125V) | |
| | 1-535-535-11 | TERMINAL, SHAFT GROUND | |
| | 1-572-298-21 | SWITCH, PUSH | |
| | 1-559-726-11 | CABLE (WITH DIN PLUG) 8P | |
| | 1-464-924-11 | ENCODER, ROTARY | |
| | 1-454-377-31 | SOLENOID PLUNGER | |
| | 1-630-923-11 | FP-206 FLEXIBLE BOARD | |
| C901 | 1-161-057-00 | CAP, CERAMIC 0.033ME X | |
| C902 | 1-161-057-00 | CAP, CERAMIC 0.033ME X | |
| M902 | 8-835-304-11 | MOTOR, DC U-11B (REEL) | |
| M903 | 8-835-364-01 | MOTOR, DC BHF-2802B (CAPSTAN) | |
| M904 | X-3711-936-1 | MOTOR ASSY, FL (CASSETTE LOADING) | |
| M905 | 8-835-138-01 | MOTOR, DC (DNR-5301B) (CONTROL) | |
| M906 | A-7040-065-A | MOTOR ASSY, L (LOADING MOTOR) | |
| M907 | 1-541-360-21 | MOTOR, DC BLUSHLESS FAN | |
| PM901⚠ | 1-454-377-31 | SOLENOID, PLUNGER | |
| S901 | 1-570-407-11 | SWITCH, SLIDE (CASSETTE LOADING) | |
| S903 | 1-553-226-00 | SWITCH, LEAF (CASSETTE LOCK) | |
| S904 | X-3713-429-1 | BRAKE ASSY, MAIN, S (RE COG) | |

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## ACCESSORIES & PACKING MATERIALS

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| Ref.No | Part No. | Description | Remark |
|---|---|---|---|
| | A-7061-563-A | CORD ASSY, CONNECTION | |
| | 1-506-412-11 | ADAPTOR, PLUG | |
| | 1-506-521-11 | PLUG ADAPTOR | |
| | 1-556-760-11 | CORD, POWER (3 CORE) | |
| | 1-557-037-21 | CABLE, AUDIO VIDEO | |
| | 1-558-102-11 | CORD, CONNECTION | |
| | * 3-697-980-01 | CUSHION, KEY BOARD | |
| | * 3-704-334-01 | SHEET (STANDARD), PROTECTION | |
| | * 3-747-064-01 | CUSHION (UPPER) | |
| | * 3-747-066-01 | CUSHION (LOWER) | |
| | 3-751-992-11 | MANUAL, INSTRUCTION (ENGLISH) | |
| | 3-751-992-41 | MANUAL, INSTRUCTION (FRENCH) | |
| | 3-751-992-51 | MANUAL, INSTRUCTION (GERMANY) | |
| | 3-751-994-11 | INSTRUCTION | |
| | 3-751-994-41 | INSTRUCTION | |
| | 3-751-994-51 | INSTRUCTION | |
| | 3-751-994-61 | INSTRUCTION | |
| | 3-751-994-71 | INSTRUCTION | |
| | 3-751-994-81 | INSTRUCTION | |

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

| Ref. No. | Part No. | Description | Remark |
|---|---|---|---|
| | 3-753-697-41 | INSTRUCTION (KEY BOARD) | |
| | 3-753-697-51 | INSTRUCTION (KEY BOARD) | |
| | 3-753-698-11 | MANUAL, INSTRUCTION (ITALIAN) | |
| | 3-753-698-41 | MANUAL, INSTRUCTION (SPANISH) | |
| | 3-753-698-51 | MANUAL, INSTRUCTION (CHINESE) | |
| | 3-944-397-01 | SPACER | |
| | 8-759-009-11 | IC MC14070BF | |
| | 8-759-207-74 | IC TC4030BFHB | |
| | 8-759-918-77 | IC MP4589 | |

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## HARDWARE LIST

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| | | |
|---|---|---|
| #1 | 7-621-255-45 | SCREW +BVTT 2X6 (S) |
| #2 | 7-685-646-79 | SCREW +BVTP 3X8 TYPE2 IT-3 |
| #3 | 7-682-555-09 | SCREW +P 3X30 |
| #4 | 7-627-850-18 | SCREW, PRECISION +P 1.4X2.5 |
| #5 | 7-621-772-10 | SCREW +B 2X4 |
| #6 | 7-621-255-65 | SCREW +P 2X10 |
| #7 | 7-627-553-28 | SCREW, PRECISION +P 2X2.5 |
| #8 | 7-621-255-25 | SCREW +P 2X4 |
| #9 | 7-624-102-04 | STOP RING 1.5, TYPE -E |
| #10 | 7-624-105-04 | STOP RING 2.3, TYPE -E |
| #11 | 7-628-253-20 | SCREW +PS 2X4 |
| #12 | 7-628-253-00 | SCREW +PSW 2X4 |
| #13 | 7-627-553-48 | SCREW, PRECISION +P 2X4 |
| #14 | 7-621-255-50 | SCREW +P 2X8 |
| #15 | 7-624-106-04 | STOP RING 3.0, TYPE -E |
| #16 | 7-627-553-68 | SCREW ( +M2X6), SPECIAL |
| #17 | 7-621-255-15 | SCREW +PTT 2X3 (S) |
| #18 | 7-621-255-20 | SCREW +P 2X4 |
| #19 | 7-685-133-19 | SCREW +P 2.6X6 TYPE2 NON-SLIT |
| #20 | 7-671-154-01 | STEEL, BALL |
| #21 | 7-623-420-07 | LW 2, TYPE B |
| #22 | 7-621-759-45 | +PSW, 2.6X6 |
| #23 | 7-685-134-19 | SCREW +P 2.6X8 TYPE2 NON-SLIT |
| #24 | 7-685-647-79 | SCREW +BVTP 3X10 TYPE2 IT-3 |

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# SECTION 7
# MECHANICAL ADJUSTMENT

## 7-1. PERIODIC CHECK AND MAINTENACE

It is recommended that the following periodic check and maintenance schedule are employed in order to obtain maximum performance of the unit and longer tape life.

### 7-1-1. MAINTENANCE AFTER REPAIRS

Perform the following maintenance after repair regardless the operating hours of the unit.

(1) Cleaning of the Rotary Upper Drum

- Press the cleaning piece moistend with cleaning fluid lightly against the Rotary Upper Drum and turn slowly the Upper Drum counterclockwise with a hand.

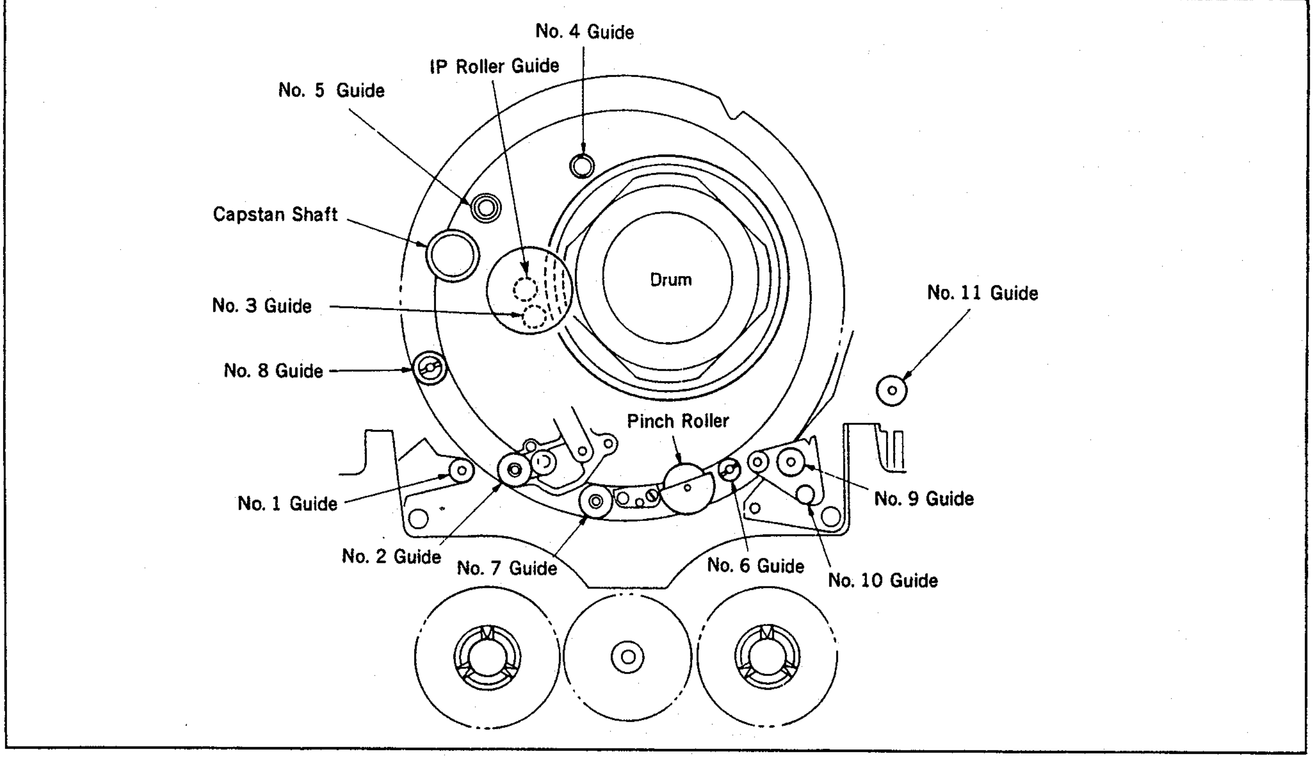
  Note: Never turn the Upper Drum by the electric power and never turn the Upper Drum clockwise with a hand. Never move the cleaning piece in the veritical direction of head tips in the cleaning. It tends to damage the video head tips. Please follow the instruction above for cleaning.

2) Cleaning of Tape Running System (fig.1)

- Put the cassette compartment into the EJECT completion mode and clean the tape running system (No.1 thru No.11 Guides, Capstan Shaft, Pinch Rolloer and IP Roller Guide) with cleaning piece moistend with the clearning the fluid.

(3) Cleaning of Drive System

- Clean the Drive system (reel table surface, belt and timing belt) with cleaning piece moistend with the cleaning fluid.


No. 4 Guide
IP Roller Guide
No. 5 Guide
Capstan Shaft
Drum
No. 3 Guide
No. 11 Guide
No. 8 Guide
Pinch Roller
No. 1 Guide
No. 9 Guide
No. 2 Guide
No. 7 Guide
No. 6 Guide
No. 10 Guide

### 7-1-2. PERIODIC CHECK

Perform the maintenance and periodic checks described below in accordance with the operational hour of the unit.

○: Cleaning ◆: Replacement ◇: Checking ■: Oiling

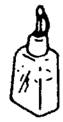
| Location | | | Hours of Use (H) | | | | | | | | | | Reference Section |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Parts Name | Parts No. | 500 | 1,000 | 1,500 | 2,000 | 2,500 | 3,000 | 3,500 | 4,000 | 4,500 | 5,000 | |
| Tape Path | Tape Path surface | – | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | 7-1-1 |
| | Upper Drum Ass'y (DGR-68-R) | A-7049-328-A | ○ | ◇ | ○ | ◇ | ○ | ◇ | ○ | ◇ | ○ | ◇ | 7-2-2 |
| | Drum Ass'y (DGH-68A-R) | A-7048-389-A | ○ | ◇ | ○ | ◇ | ○ | ◇ | ○ | ◇ | ○ | ◇ | 7-2-3 |
| | Pinch Roller Arm Ass'y | X-3686-648-1 | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | 7-2-5 |
| | (Note 4:)<br>Capstan shaft bearing | 8-835-364-01 | – | ■ | – | ■ | – | ■ | – | ■ | – | ■ | —— |
| Drive System | Threading motor belt | 3-686-546-01 | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ◆ | ○ | ○ | 7-2-7 |
| | Blake plunger | 1-454-377-31 | – | – | – | ○ | – | – | – | ○ | – | – | 7-2-20 |
| | Threading motor | A-7040-065-A | – | ◇ | – | ◇ | – | ◇ | – | ◇ | – | ◇ | 7-2-7 |
| | Control motor | 8-835-138-01 | – | ◇ | – | ◇ | – | ◇ | – | ◇ | – | ◇ | 7-2-21 |
| | Reel motor | 8-835-304-11 | – | ◇ | – | ◇ | – | ◇ | – | ◇ | – | ◇ | 7-2-8 |
| | T Reel Table Ass'y | X-3711-998-1 | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | 7-2-14 |
| | S Reel Table Ass'y | X-3713-427-1 | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | 7-2-13 |
| | T•Main Brake Ass'y | X-3686-574-1 | – | ◇ | – | ◇ | – | ◇ | – | ◇ | – | ◇ | —— |
| | S•Main Brake Ass'y | X-3713-429-1 | – | ◇ | – | ◇ | – | ◇ | – | ◇ | – | ◇ | —— |
| | T•S Brake Ass'y | X-3711-987-2 | – | ◇ | – | ◇ | – | ◇ | – | ◇ | – | ◇ | —— |
| | REW Brake Ass'y | X-3711-993-1 | – | ◇ | – | ◇ | – | ◇ | – | ◇ | – | ◇ | —— |
| | Tension Regulator Band Ass'y | X-3686-531-1 | – | ◇ | – | ◇ | – | ◇ | – | ◇ | – | ◇ | 7-2-16 |
| | Roller (Cassette-up Compartment) | 3-713-466-01 | – | – | – | – | – | ○ | – | – | – | – | —— |
| Performance Check | Abnormal-noise | – | ◇ | ◇ | ◇ | ◇ | ◇ | ◇ | ◇ | ◇ | ◇ | ◇ | —— |
| | FWD Back tension measurement | – | – | ◇ | – | ◇ | – | ◇ | – | ◇ | – | ◇ | 7-3-5 |
| | Brake torque measurement | – | – | ◇ | – | ◇ | – | ◇ | – | ◇ | – | ◇ | 7-3-1 to 7-3-3 |
| | FWD, RVS torque measurement | – | – | ◇ | – | ◇ | – | ◇ | – | ◇ | – | ◇ | 7-3-4 |

Note 1: When overhauling the unit, refer to the items above for replacement of parts.
Note 2: The time of parts replacement will differ with operating environment
Note 3: Be sure to clean the tape path surface in repairing.
Note 4: Oiling to the Capstan Shaft Bearing.
Apply one-half drop of oil to the Capstan Shaft Bearing.
(Never apply oil to the tape path surface.)

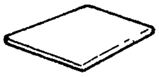
### 7-1-3. SERVICING TOOLS

| Ref. No. | Parts No. | Description | Application |
|---|---|---|---|
| J-1 | Y-2031-001-1 | Cleaning Fluid | Cleaning |
| J-2 | 7-741-900-53 | Wiping Cloth | Cleaning |
| J-3 | Commercially sold | Head Degausser | Head degauss |
| J-4 | J-6080-840-A | Small Adjustment Mirror | Tape path adjustment |
| J-5 | 8-967-995-07 | Alignment Tape, WR5-1CP | Tape path adjustment |
|  | 8-967-995-18 | Alignment Tape, WR5-7CE | Video frequency response adjustment |
|  | 8-967-995-47 | Alignment Tape, WR5-5CSP | Video adjustment |
|  | 8-967-995-48 | Alignment Tape, WR5-8CSE | Serve, audio and video adjustment (SP) |
|  | 8-967-995-57 | Alignment Tape, WR5-8CLE | Servo, audio and video adjustment (LP) |
| J-6 | J-6080-827-A | Dial Tension Gauge | Measurement of torque |
| J-7 | J-6080-831-A | Tension Measurement Reel | FWD Back tension adjustment |
| J-8 | J-6080-832-A | Tension Measurement Reel | Brake torque check |
| J-9 | J-6080-823-A | No. 10 Gear Phase Tool | Threading ring assembly replacemnt |
| J-10 | J-6080-826-A | No. 6 Guide Lock Screwdriver | Tape path adjustment |
| J-11 | ——— | Rotary Drum Tool<br>(packed with the Rotary Upper Drum for repair) | Rotary upper drum replacement |
| J-12 | J-6080-824-A | FWD, RVS Winding Torque Cassette | S•T reel table winding torque check |
| J-13 | J-6080-825-A | Mode Selector | Mechanical check, adjustment and replacement |
| J-14 | J-6080-891-A | Track Shift Tool | Tape path adjustment |
| J-15 | J-6080-883-A | RE/SWP Connector | Tape path adjustment |
| J-16 | J-6080-884-A | CTL Connector | Tape path adjustment |
| J-17 | 7-700-766-01 | Hexagonal Screwdriver (0.89 mm) | Tape path adjustment |

J-1



J-2



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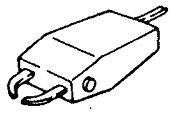

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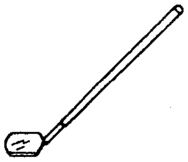
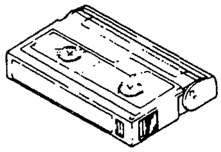


J-5



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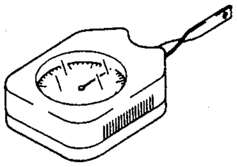
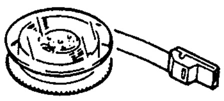
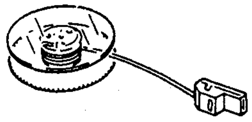


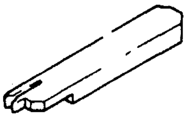
J-7



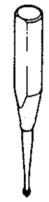
J-8



J-9

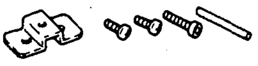


J-10

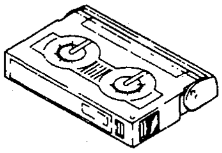


J-11

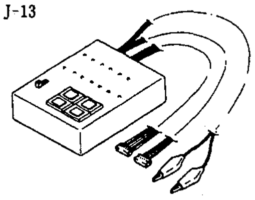
(Packed with the rotary upper drum for repair)



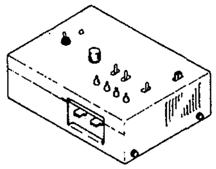
J-12



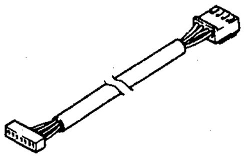
J-13



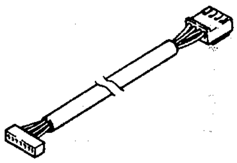
J-14



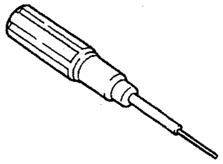
J-15



J-16



J-17



### 7-1-4. HOW TO USE THE CLEANING TAPE

Cleaning Tape: V8-25CLH (separately available)

. Never use the cleaning tape, V8-25CLN.

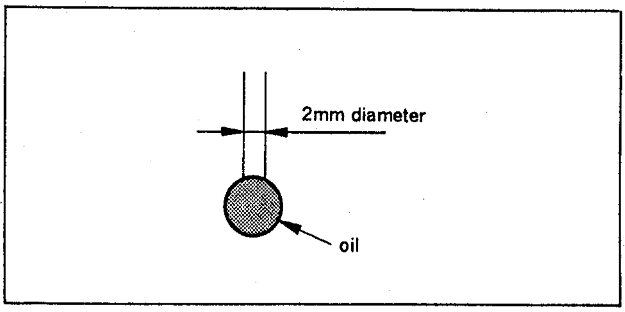
(1) When the rotary heads clog and head cleaning descrived Section 7-1-1 can not clean the heads, use the cleaning tape.
If use the cleaning tape except for the above, it will shorten the life of the heads.

(2) The one time cleaning is within fifteen seconds and never reuse the cleaning tape after rewinding.

### 7-1-5. OTHERS

(1) Sony oil

- Be sure to use the Sony oil as the lubrication oil. (If other oil is useed, various troubles due to different viscosity tends to be caused.)
  Sony oil: Part No. 7-661-018-18
- Use the Sony oil in which dust or other foreign material have not mixed for lubricating the bearing. (If foreign material is in the oil, wear or burning of the bearing tends to be caused.)
- One drop of oil means the amount which sticks to a 2 mm diameter rod, as shown in the figure.



(2) Sony grease

- Be sure to use the Sony grease as the lubrication grease.
  Sony grease: Part No. 7-662-001-62
  (SGL-501)

(3) MOLYTONE GREASE

- Be sure to use the MOLYTONE GREASE as the lubrication grease.
  MOLYTONE GREASE: Part No. 7-662-001-41
  (No. 320)

## 7-2. REPLACEMENT OF MAJOR PARTS

### PREPARATION FOR REPLACEMENT OF PARTS

Replacement of some parts use the *Mode Selector. The mode ( ☐ marked mode) in the replacement procudure is set by pressing the button on the Mode Selector.

*It is a kind of tool.
Part No. : J-6080-825-A

**. Operation of Mode selector**

1. Location of parts and controls (fig. 1)
2. Connection (fig. 2)
   (1) Remove the Front Panel, Top Plate and Bottom Plate referring to Section 2-1.
   (2) Remove the Mecha Deck Block from the unit referring to Section 2-5.
   (3) Remove the MB-19P, MD-23P, HK-5 and SE-10P Boards from the unit referring to Sections 2-10, 2-11, 2-12 and 2-13
   (4) Disconnect the connectors (6P) on the MS-4 and LS-9 Boards.
   (5) Connect the 6P connector (six harness, white) for the M-switch of the Mode Selector to the MS-4 Board.
   (6) Connect the 6P connector (four harness, black) for the L-switch of the Mode Selector to the LS-9 Board.
   (7) Remove the cover of the Threading Motor.
   (8) Connect the red clip of the Threading Motor driver lead to the red terminal of the Threading Motor and the black clip to the brown terminal.

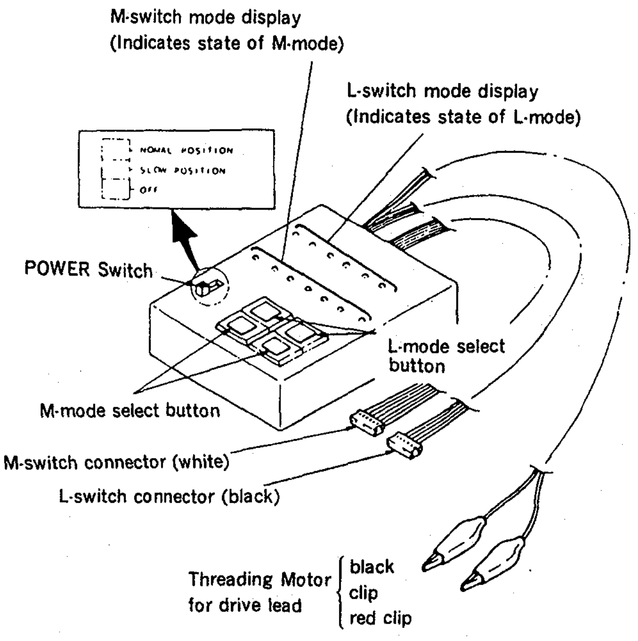

M-switch mode display
(Indicates state of M-mode)
L-switch mode display
(Indicates state of L-mode)
NOMAL POSITION
SLOW POSITION
OFF
POWER Switch
L-mode select button
M-mode select button
M-switch connector (white)
L-switch connector (black)
Threading Motor for drive lead
black clip
red clip

Fig. 1

3. Note

(1) When operating L-switch, be sure to set the mode of M-switch to LOADING/UNLOADING mode.

(2) When operating M-switch, be sure to set the mode of L-switch to LOADING TOP or LOADING END mode.

4. Operation

When L-mode or M-mode does not set in each mode during mode selection, the BLANK position lights up.

(1) L-mode

- When the right side L-mode select button is pressed continuously, the mode changes from LOADING TOP to LOADING END in order from left.
- When the mode changes from LOADING END to LOADING TOP in order, press the left side L-mode select button cotinuously.
- When the power switch is set to the SLOW position, the L-mode operates more slowly than the NORMAL position.

(2) M-mode

- When performing EJECT, set the mode of L-switch to LOADING TOP.
- When performing from FF/REW to RVS or from RVS to FF/REW, set the mode of L-switch to LOADING END.
- When the right side M-mode select button is pressed continuously, the mode changes from EJECT to RVS in order from left.
- When the mode changes from RVS to EJECT, press the left side M-mode select button continuously.

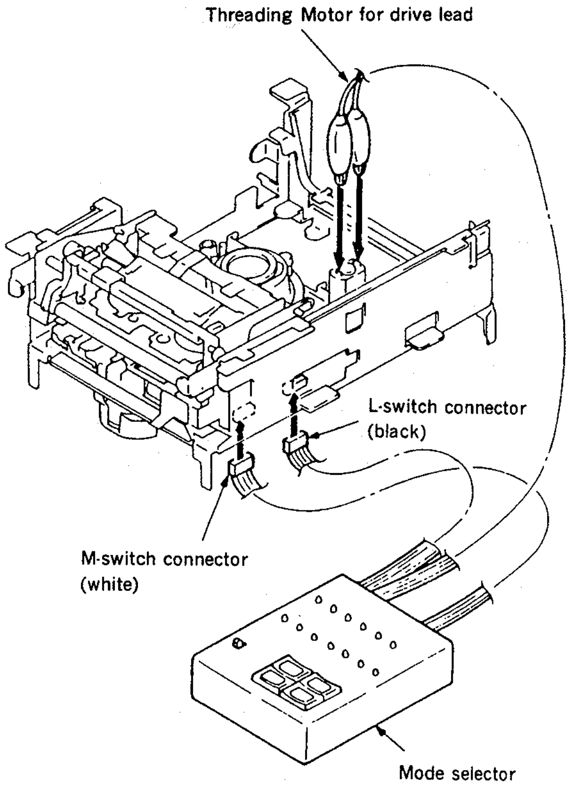

Threading Motor for drive lead
L-switch connector (black)
M-switch connector (white)
Mode selector

Fig. 2

### 7-2-1. REPLACEMENT OF THE FLY WHEEL

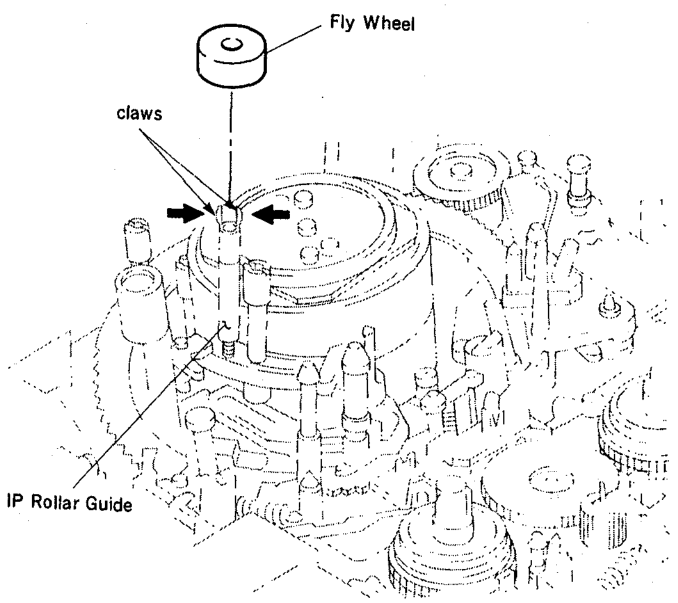
**Removal:**

(1) Open the MB-19P Board referring to Section 2-10.

(2) Remove the Fly Wheel while picking the claws.

**Installation:**

(1) Replace the Fly Wheel with a new one. Insert the Fly Wheel in the IP Rollar Guide from the big hole side until click sound can be heard.


Fly Wheel
claws
IP Rollar Guide

### 7-2-2. REPLACEMENT OF THE ROTARY UPPER DRUM

- The video heads can not be replaced as a single parts. Replace the whole Rotary Upper Drum Assembly.
- There is a relay PC Board (DH-6 Board) for the video and audio signals in the Rotary Upper Drum. It is not necessary to replace the DH-6 Board, if it is broken, replace the whole the Rotary Upper Drum Assembly.

Tools: Rotary Drum Tool (Ref No. J-11)
(It is packed together with the Repair Rotary Upper Drum.)
L-shaped wrench
(across flat has 1.5 mm)

**Removal:**

(1) Open the MB-19P Board referring to Section 2-10.

(2) Remove the Fly Wheel reffering to Section 7-2-1.

(3) Remove the two screws (M2 X 2.7) and remove the Dynamic Damper.

(4) Unsolder the ten terminals at A positions. Check that the terminals which are projected out from the PC Board move freely with a pair of tweezers, etc. (fig. 1)

(5) Remove the two screws (M2 X 5).

(6) Install the tool A to the two screw holes of installing the Dynamic Damper with the two accessory supplied screws. Thread the accessory supplied hexagon screw into the center hole of the tool A, and remove the Rotary Upper Drum. (fig. 2)

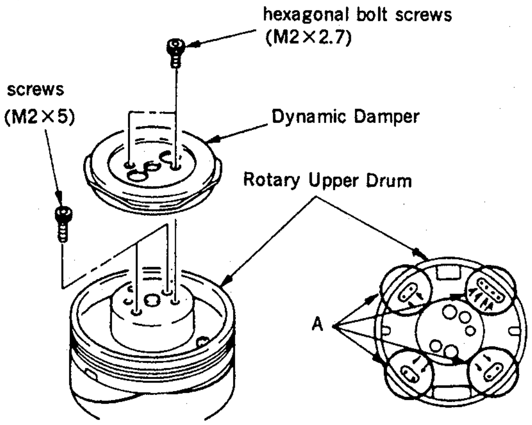

hexagonal bolt screws
(M2×2.7)
screws
(M2×5)
Dynamic Damper
Rotary Upper Drum
A

Fig. 1

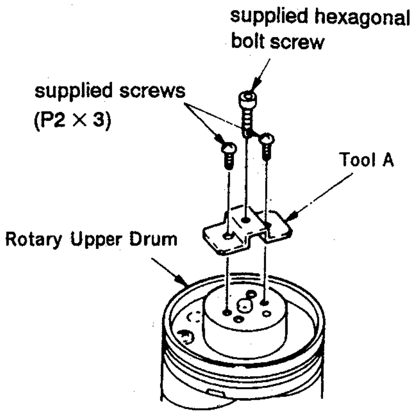

supplied hexagonal
bolt screw
supplied screws
(P2 × 3)
Tool A
Rotary Upper Drum

Fig. 2

**Installation:**

(1) Clean the flange surface of the Lower Drum and the contact point of the new Rotary Upper Drum with a cleaning piece. Check that no dust or flaw are left.

(2) While adjusting the positional relationship of the Rotary Upper Drum and positioning hole with the tool B, insert the Rotary Upper Drum lightly. At this time, Check that the terminals project out from the PC Board of the Rotary Upper Drum. When the terminals are caught, correct them with a pair of tweezers, etc.. Remove the tool B and lightly push the Rotary Upper Drum by hand. If the Rotary Upper Drum does not down to the botom, thread the two fixing screws to the Rotary Upper Drum alternately, but do not tighten them. Insert the tool B in the positioning hole and check that the tool B can be inserted smoothly again. If the tool B can not be inserted, loosen the two screws (M 2 X 5) and adjust the position of the Rotary Upper Drum by precision screwdriver. (fig. 3 and 4)

(3) Tighten the two screws (M2 X 5).

(4) Assemble the parts with Removal Steps (1) to (4) in reverse order.

**Note:** . Do not tighten all the screws too strongly.

. Be carefull not to flow solder below the PC Board.

**After replacement, perform the Tape Path Adjustment referring to Section 7-4.**

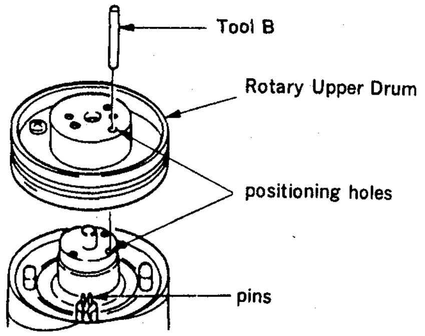


Fig. 3

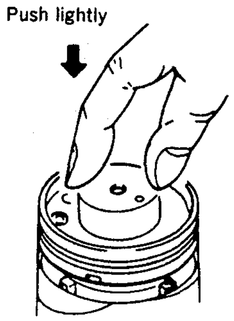


Fig. 4

### 7-2-3. REPLACEMENT OF THE DRUM ASSEMBLY

**Removal:**

(1) Open the MB-19P Board referring to Section 2-10.

(2) Remove the Cassette-up Compartment Assembly referring to Section 2-13.

(3) Remove the Fly Wheel referring to Section 7-2-1.

(4) Open the HK-5 and SE-10P Boards referring to Sections 2-12 and 2-13.

(5) Remove the two fixing screws and remove the Flexible Cover. (fig. 1)

(6) Disconnect the connectors (CN805, 806) on the MD-23P Board and disconnect the connector (CN001) on the FR-43 Board.

(7) Remove the fixing screw and remove the Shaft Ground Terminal.

(8) Remove the two fixing screws and remove the Drum Assembly. (fig. 2)

**Note:** At this time, be careful that the Drum Assembly does not touch the No. 3 Guide and the IP Roller Guide, etc..

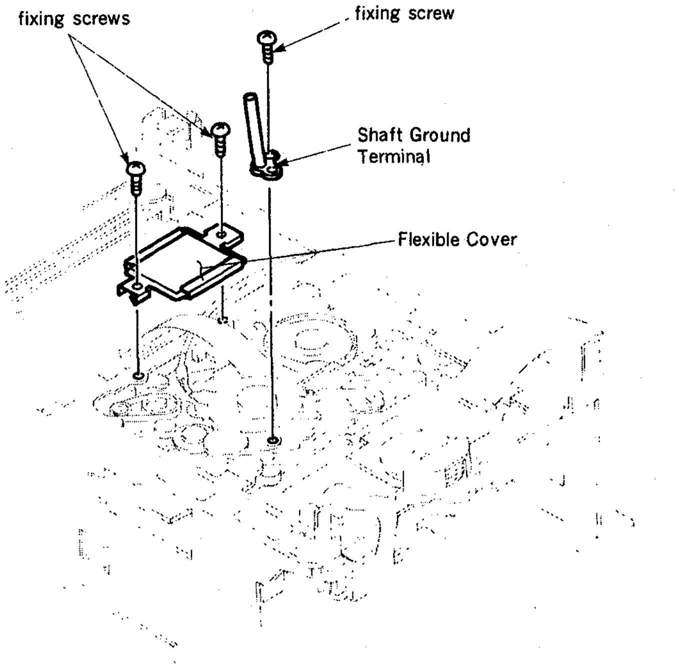

fixing screws
fixing screw
Shaft Ground Terminal
Flexible Cover

Fig. 1

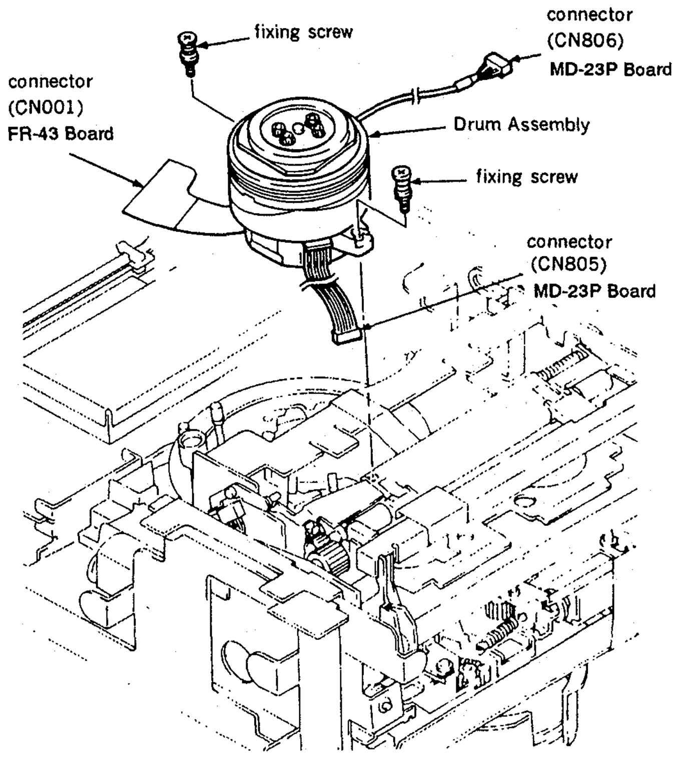

fixing screw
connector (CN806) MD-23P Board
connector (CN001) FR-43 Board
Drum Assembly
fixing screw
connector (CN805) MD-23P Board

Fig. 2

**Installation:**

(1) Clean the flange surface of the new Drum Assembly and the contact point of the mechanical chassis with a cleaning piece.

(2) Set the Drum Assembly to the two projections of the Mecha chassis and tighten the two fixing screws.

**Note:** At this time, be careful that the screwdriver does not touch the head chips. (fig. 3)

(3) Peel off the tape from the Rotor and FG Stator of the Drum Assembly.

(4) Clean the shaft of the Drum Assembly with a cleaning piece.

(5) Clean the Shaft Ground Terminal which contact to the Drum Shaft with a cleaning piece and set the Shaft Ground Terminal to the projection of mechanical chassis and tighten the fixing screw.

(6) Assemble the parts with Removal Steps (1) to (6) in reverse order.

**After replacement, perform the Tape Path Adjustment referring to Section 7-4.**

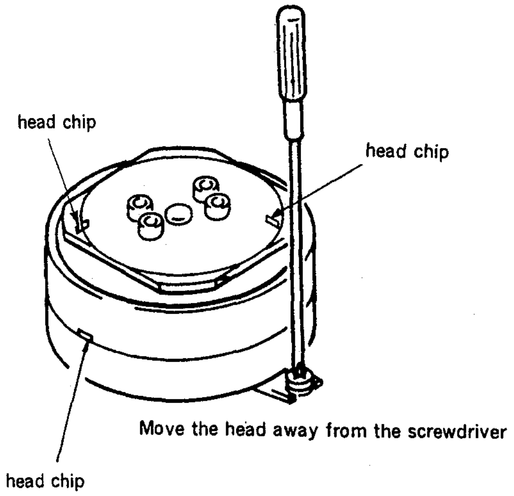


Fig. 3

## 7-2-4. REPLACEMENT OF THE THREADING RING ASSEMBLY

Tools: Mode Selector (Ref. No. J-13)
No. 10 Gear Phase Tool
(Ref. No. J-9)
Sony Oil

**Removal:**

(1) Remove the Cassette-up Compartment Assembly referring to Section 2-16.

(2) Press the L-mode select button of the Mode Selector and move the Guide Base Assembly and the No. 2 Guide Assembly until just before it is locked. (Do not move the Threading Ring Assembly.)

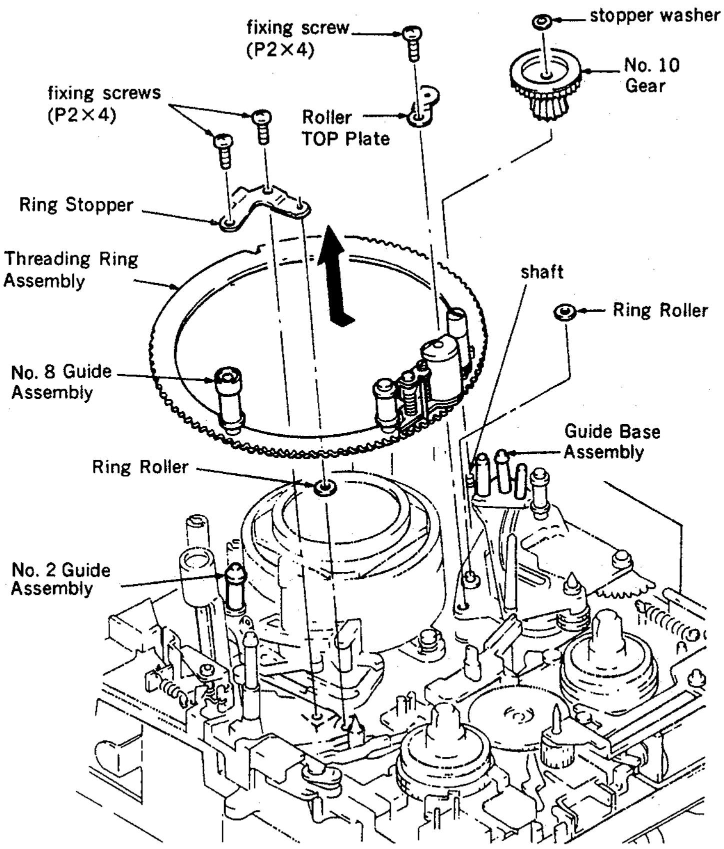
(3) Remove the stopper washer and remove the No. 10 Gear Assembly.

(4) Remove the fixing screw and remove the Roller Top Plate and Ring Roller.

(5) Remove the two fixing screws and remove the Ring Stopper and Ring Roller.

(6) Remove the Threading Ring Assembly in the direction of the arrow.

**Note:** When removing the Threading Ring Assembly, be careful that the Threading Ring Assembly does not touch the Drum and Capstan Shaft.


fixing screw
(P2×4)
stopper washer
No. 10
Gear
fixing screws
(P2×4)
Roller
TOP Plate
Ring Stopper
Threading Ring
Assembly
shaft
Ring Roller
No. 8 Guide
Assembly
Guide Base
Assembly
Ring Roller
No. 2 Guide
Assembly

**Installation:**

(1) Replace the Threading Ring Assembly with a new one.

(2) Install the Threading Ring Assembly so that it puts into the unthreading mode. The Pinch Roller Arm Assembly is the Reel Table side. (Check that each assembly is put into the Step (2) at removal procedure.)

(3) Install the Ring Roller and Ring Stopper and tighten them with two fixing screws. (Check that the No. 8 Guide Assembly is in front of Ring Stopper.)

(4) Install the Ring Roller and Roller Top Plate and tighten them with the screw. (Check that the Threading Ring Assembly matches the three Ring Rollers.)

(5) Apply a half drop of oil on the shaft.

(6) Check that the pin of the Drive Changer Assembly is into the notch of the L-switch Assembly. Insert the No. 10 Gear Phase Tool (Ref. No. J-9) into the notch of the L-SW Assembly.

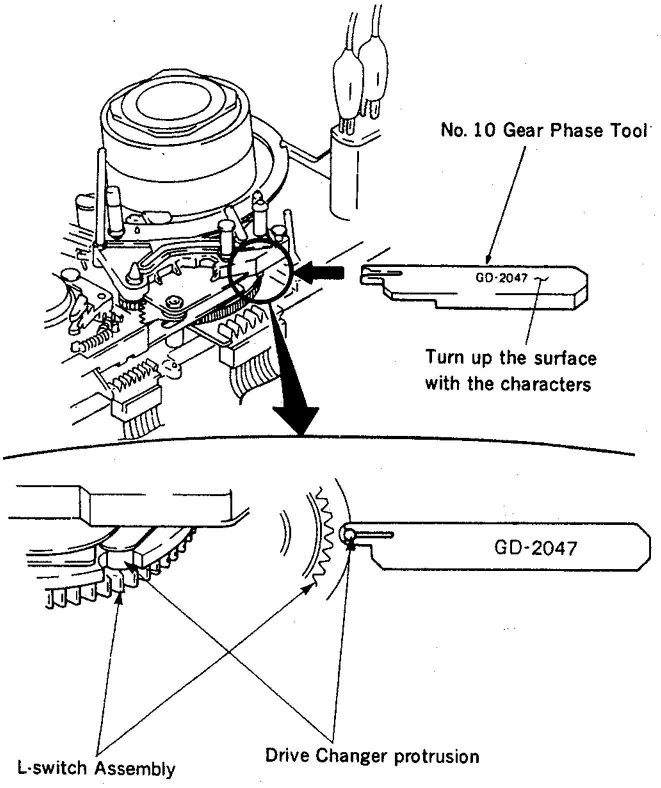
(7) While pushing the No. 8 Guide Assembly against the Ring Stopper, install the No.10 Gear Assembly with a stopper washer.

(8) Pull out the No. 10 Gear Phase Tool.

(9) Press the L-mode select button of the Mode Selector and set to the LOADING TOP mode.

(10) Install the Cassette-up Compartment Assembly referring to Section 2-16.

**After replacement, perform the Tape Path Adjustment referring to Section 7-4.**



## 7-2-5. REPLACEMENT OF THE PINCH ROLLER ARM ASSEMBLY

**Removal:**

(1) Open the MB-19P Board referring to Section 2-10.

(2) Remove the Cassette-up Compartment Assembly referring to Section 2-16.

(3) Remove the stopper washer. (fig. 1)

(4) Hook the spring which is hooked to the No. 7 Guide Assembly to the groove of the Pinch Roller Arm (fig. 2)

(5) Turn the Pinch Roller Arm Assembly in the direction of the arrow. (fig. 3)

(6) Remove the Pinch Roller Arm Assembly in the direction of the arrow. (fig. 4)

(7) Remove the spring. (fig. 5)

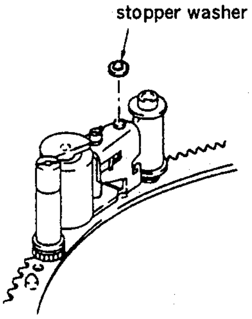

stopper washer

Fig. 1

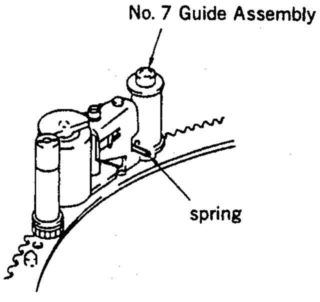

No. 7 Guide Assembly
spring

Fig. 2

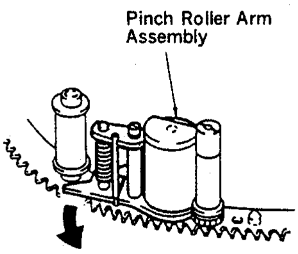

Pinch Roller Arm Assembly

Fig. 3

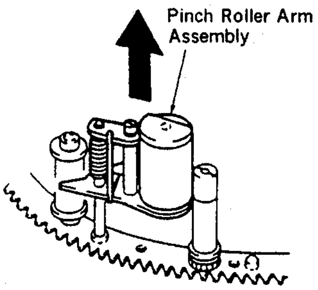

Pinch Roller Arm Assembly

Fig. 4

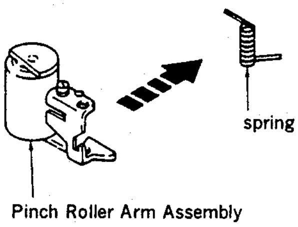

spring
Pinch Roller Arm Assembly

Fig. 5

**Installation:**

(1) Replace the Pinch Roller Arm Assembly with a new one.

(2) Install the spring and hook the ends of the spring to the Pinch Roller Arm Assembly. (fig. 1)

(3) Insert the end of the clip or another thin rod into the hole of the Pinch Roller Arm Assembly. (fig. 2 and 3)

(4) Put the end of the clip to the shaft of the Threading Ring Assembly and install the Pinch Roller Assembly. (fig. 4 and 5)

(5) Hook the end of the spring to the No. 7 Guide Assembly.
At this time, check that the another end of the spring is hooked to "A". (fig. 6)

(6) Assemble the parts with Removal Steps (1) to (3) in reverse order.

**After replacement, perform the Tape Path Check referring to Section 7-4-6.**

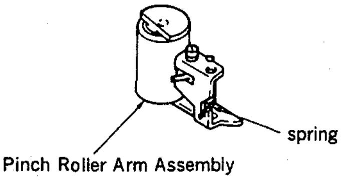

spring
Pinch Roller Arm Assembly

Fig. 1

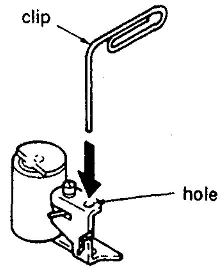


Fig. 2

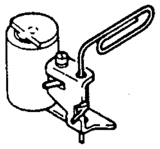


Fig. 3

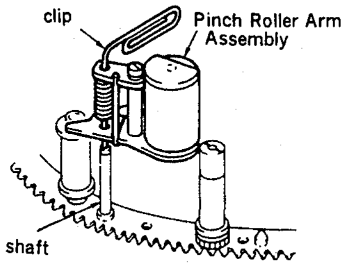

clip
Pinch Roller Arm Assembly
shaft

Fig. 4

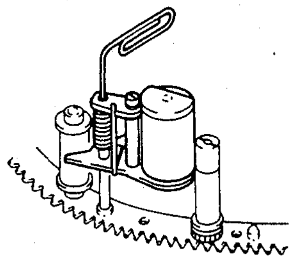


Fig. 5

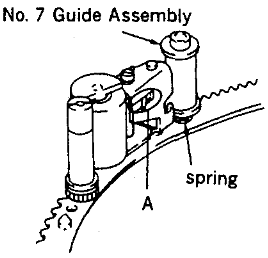

No. 7 Guide Assembly
spring
A

Fig. 6

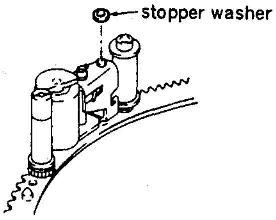

stopper washer

Fig. 7

### 7-2-6. REPLACEMENT OF THE CAPSTAN MOTOR

**Removal:**

(1) Open the MB-19P Board referring to Section 2-10.

(2) Remove the Cassette-up Compartment Assembly referring to Section 2-16.

(3) Remove the Threading Ring Assembly referring to Section 7-2-4.

(4) Open the HK-5 and SE-10P Boards referring to Sections 2-12 and 2-13.

(5) Remove the two fixing screws and remove the Flexible Cover.

(6) Remove the harness of the Capstan Motor from the Wire Holder.

(7) Remove the fixing screw and remove the Wire Holder.

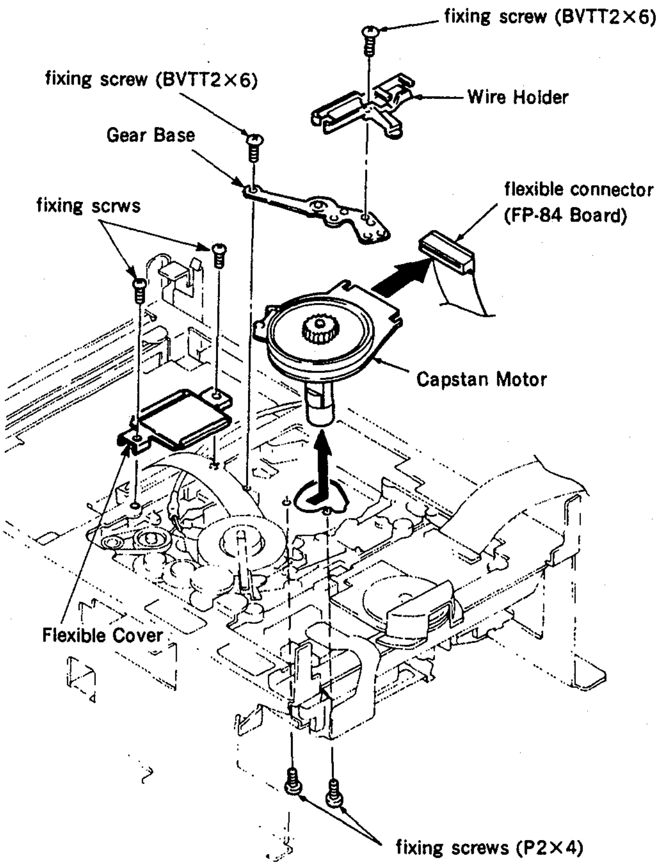
(8) Remove the fixing screw and remove the Gear Base.

(9) Disconnect the flexible connector of the Capstan Motor.

(10) Remove the two fixing screws and remove the Capstan Motor in the direction of the arrow.

**Installation:**

(1) Replace the Capstan Motor with a new one and assemble the parts with Removal Steps (1) to (10) in reverse order.


fixing screw (BVTT2×6)
fixing screw (BVTT2×6)
Wire Holder
Gear Base
flexible connector
(FP-84 Board)
fixing scrws
Capstan Motor
Flexible Cover
fixing screws (P2×4)

### 7-2-7. REPLACEMENT OF THE THREADING MOTOR ASSEMBLY

**Removal:**

(1) Open the MB-19P Board referring to Section 2-10.

(2) Open the HK-5 and SE-10P Boards referring to Section 2-12 and 2-13.

(3) Remove the L Motor Belt.

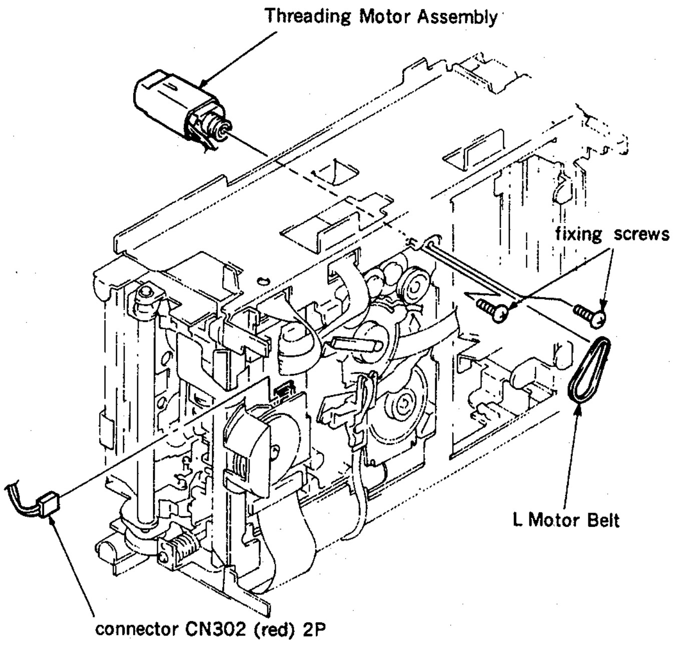
(4) Disconnect the connector (CN302) on the RS-31 Board.

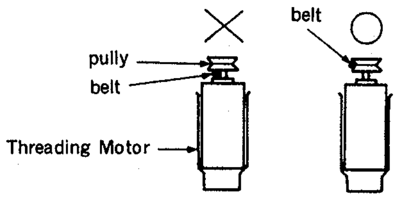
(5) Remove the two fixing screws and remove the Threading Motor Assembly.

**Installation:**

(1) Replace the Threading Motor Assembly with a new one and assemble the parts with Removal Steps (1) to (5) in reverse order.

**Note:** Before installing the L Motor Belt, clean it with a cleaning piece and be sure to install the belt in the groove of pulley.


Threading Motor Assembly
fixing screws
L Motor Belt
connector CN302 (red) 2P


×
belt
○
pully
belt
Threading Motor

## 7-2-8. REPLACEMENT OF THE REEL MOTOR

**Removal:**

(1) Open the HK-5 and SE-10P Boards referring to Section 2-12 and 2-13.

(2) Remove the FP-122 Flexible Board from the PC Board of the Reel Motor.

(3) Remove the FP-206 Flexible Board from the RS-31 Board.

(4) Remove the two fixing screws of the Motor Bracket.

(5) Insert a flatblade screwdriver into A, release the projection B and remove the Motor Bracket.

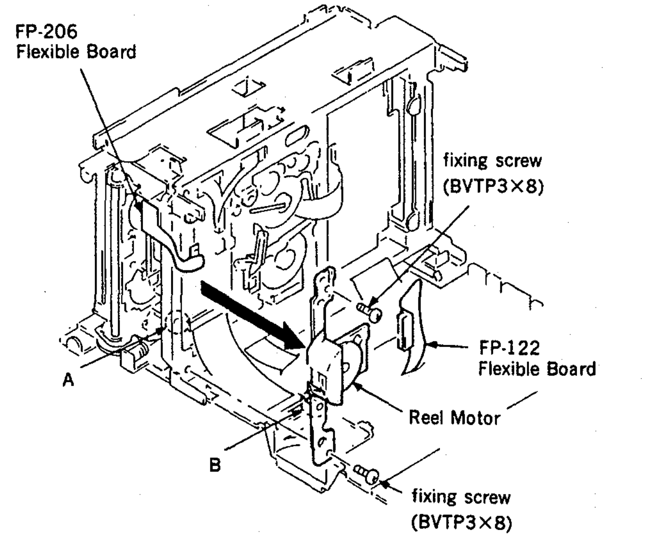
**Note:** If the Motor Bracket is removed by hand directly, it tends to damage the Motor Bracket.

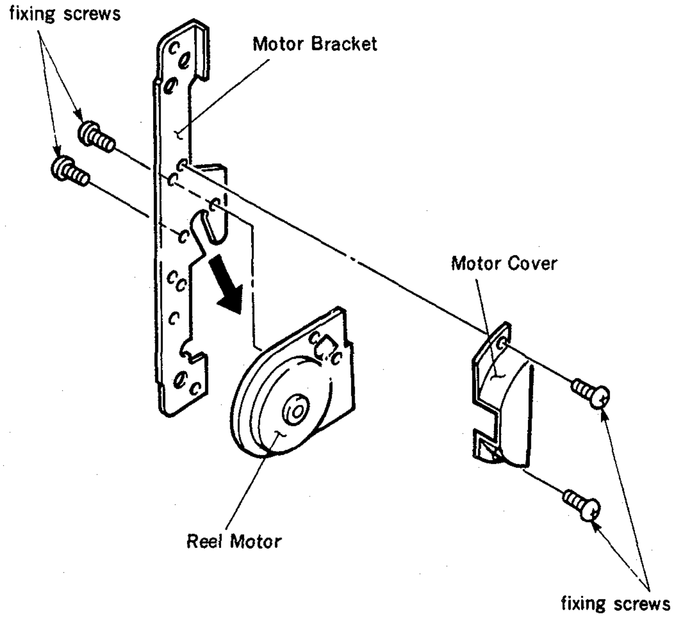
(6) Remove the two fixing screws and remove the Motor Cover from the Motor Bracket.

(7) Remove the two fixing screws and remove the Reel Motor in the direction of the arrow.

**Installation:**

(1) Replace the Reel Motor with a new one. Assemble the parts with Removal Steps (1) to (7) in reverse order.


FP-206
Flexible Board
fixing screw
(BVTP3×8)
FP-122
Flexible Board
A
Reel Motor
B
fixing screw
(BVTP3×8)


fixing screws
Motor Bracket
Motor Cover
Reel Motor
fixing screws

### 7-2-9. REPLACEMENT OF THE No. 3 and No. 4 GUIDES

**Removal:**

(1) Open the MB-19P Board referring to Section 2-10.

(2) When replacing the No. 3 Guide, remove the Fly Wheel referring to Section 7-2-1.

(3) Turn the Rotary Upper Drum counterclockwise and keep heads away from the No. 3 Guide or No. 4 Guide.

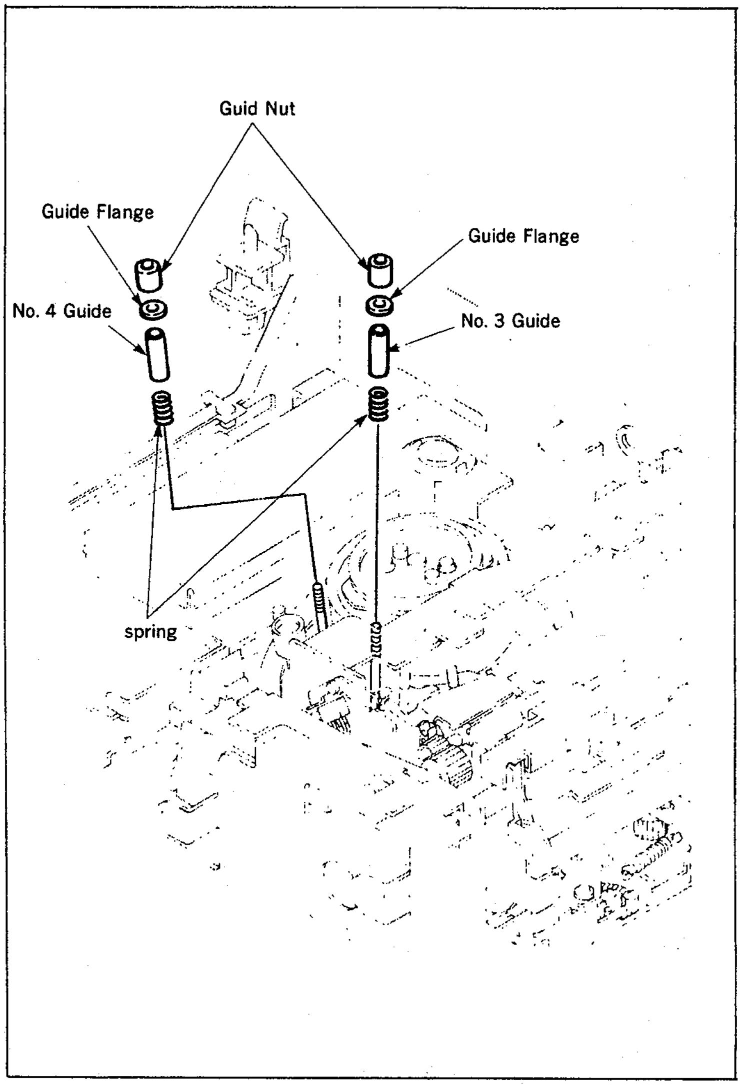
(4) Remove the Guide Nut and remove the Guide Flange, No. 3 Guide (or No. 4 Guide) and spring.

**Installation:**

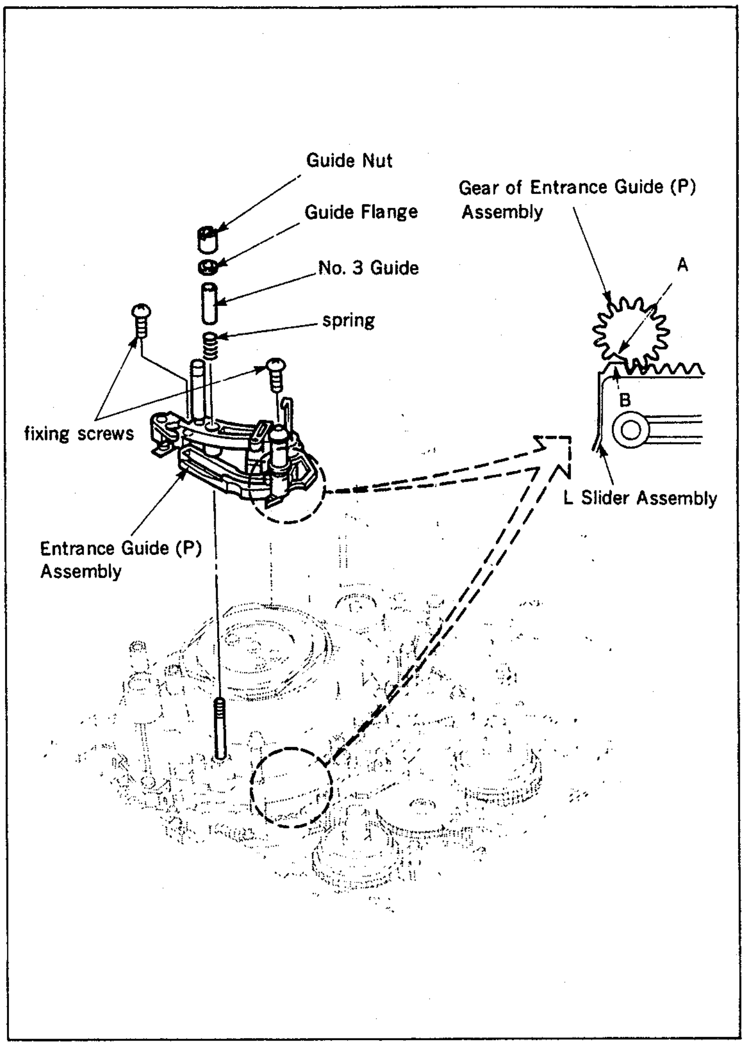
(1) Replace the No. 3 Guide (or No. 4 Guide) with a new one.

(2) Assemble the parts with Removal Steps (1) to (4) in reverse order.

**After replacement, adjust the height of the No. 3 and No. 4 Guides to meet the tape path condition of Section 7-4-6-3 by turning the Guide Nut.**



### 7-2-10. REPLACEMENT OF THE ENTRANCE GUIDE (P) ASSEMBLY (No. 2 GUIDE ASSEMBLY)


Guide Nut
Gear of Entrance Guide (P) Assembly
Guide Flange
No. 3 Guide
A
spring
B
fixing screws
L Slider Assembly
Entrance Guide (P) Assembly

**Removal:**

(1) Open the MB-19P Board referring to Section 2-10.

(2) Remove the Cassette-up Compartment Assembly referring to Section 2-16.

(3) Remove the Fly Wheel referring to Section 7-2-1.

(4) Turn the Rotary Upper Drum counterclockwise and keep heads away from the Entrance Guide (P) Assembly.

(5) Remove the Guide Nut and remove the Guide Flange, No. 3 Guide and spring.

(6) Remove the two fixing screws and remove the Entrance Guide (P) Assembly.

**Installation:**

(1) Check that the mechanical block is put into the LOADING TOP mode.

(2) Replace the Entrance Guide (P) Assembly with a new one.

(3) Engage the Entrance Guide (P) Assembly and L Slider Assembly so that their flat portions A and B are matched, and tighten it with two fixing screws.

(4) Assemble the parts with Removal Steps (3) and (5) in reverse order.

(5) Perform the FWD Back Tension Adjustment referring to Section 7-3-5.

(6) Assemble the parts with Removal Steps (1) and (2) in reverse order.

**After replacement, perform the Tape Path Adjustment referring to Section 7-4.**

## 7-2-11. REPLACEMENT OF THE SLANT GUIDE ASSEMBLY

Tool: Mode Selector (Ref. No. J-13)

**Removal:**

(1) Remove the Cassette-up Compartment Assembly referring to Section 2-16.

(2) Remove the Threading Ring Assembly referring to Section 7-2-4.

(3) Remove the fixing screw and E ring.

(4) Remove the Slant Guide Block Assembly.

**Installation:**

(1) Operate the L-mode select button of the Mode Selector and align the right edge of the L Slider Assembly and the right side of the Lock Slider M Assebmly. (fig. 2)

**Note:** At this time, check that the position of the notch on the Slant Guide Drive Gear is placed as shown in figure 2.

(2) Assemble the Guide Base Assembly of new Slant Guide Block Assembly the position of the *unthreading end.

*The Guide Base Assembly is the Reel Table side.

(3) Assemble the parts with Removal Steps (1) to (3) in reverse order.

**After replacement, perform the Tape Path Check referring to Section 7-4-6.**

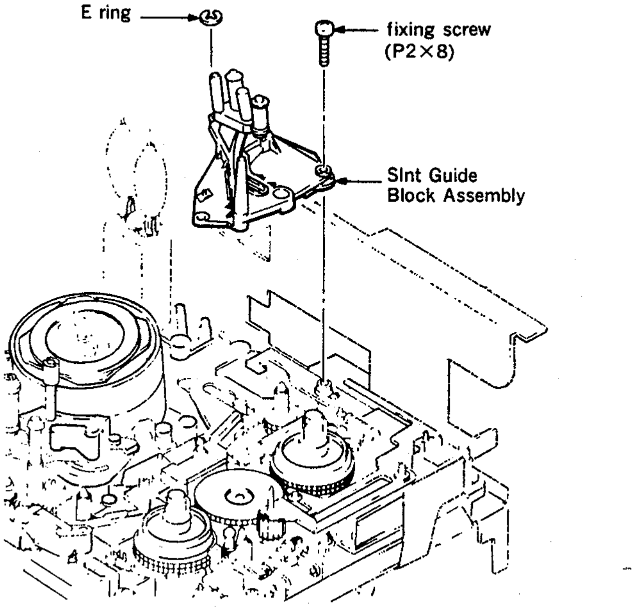

E ring
fixing screw
(P2×8)
Slnt Guide
Block Assembly

Fig. 1

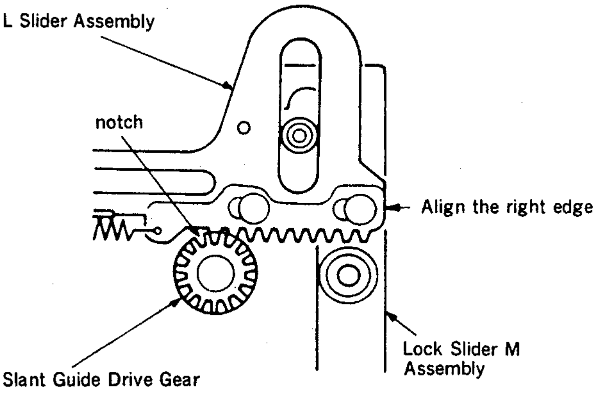

L Slider Assembly
notch
Align the right edge
Lock Slider M
Assembly
Slant Guide Drive Gear

Fig. 2

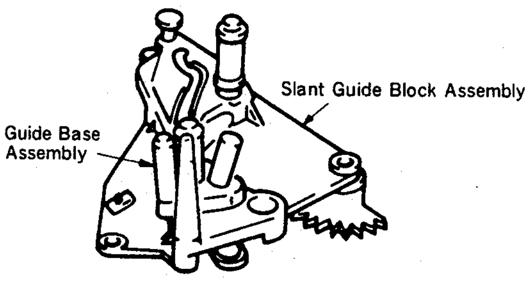

Slant Guide Block Assembly
Guide Base
Assembly

Fig. 3

## 7-2-12. REPLACEMENT OF THE No. 5 GUIDE BLOCK COMPLETE ASSEMBLY

**Removal:**

(1) Open the MB-19P Board referring to Section 2-10.

(2) Turn the Rotary Upper Drum counterclockwise and keep heads away from the fixing screw of the Guide Block.

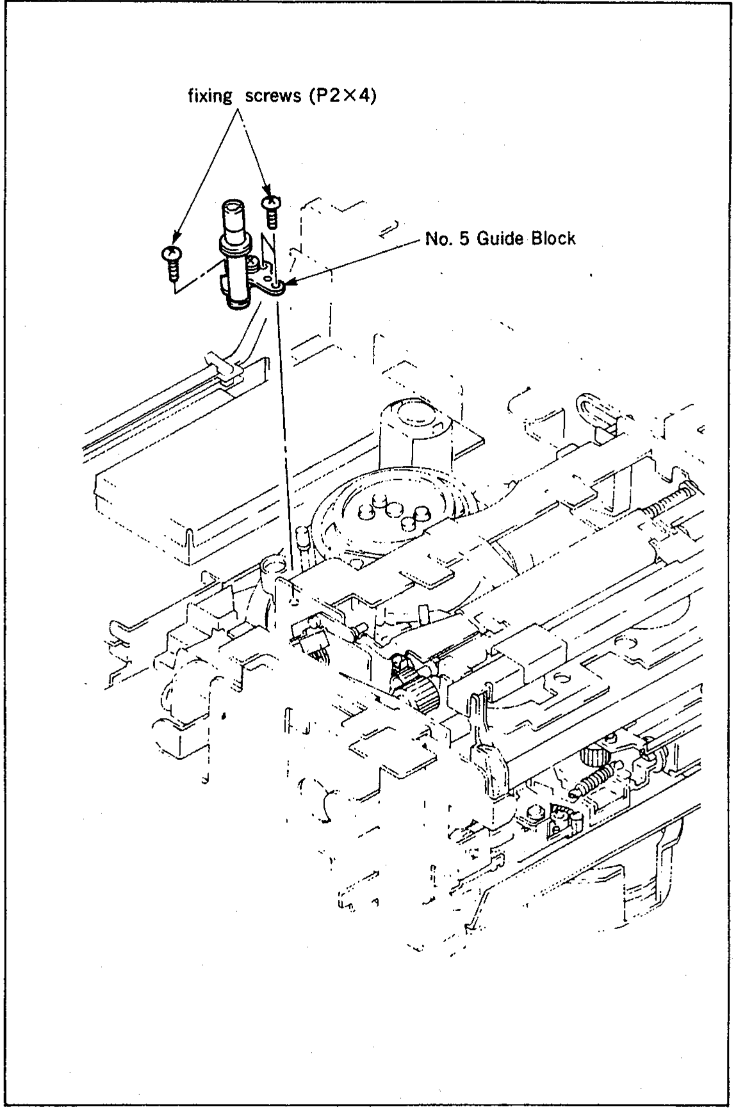
(3) Remove the three fixing screws and remove the No. 5 Guide Block Complete Assembly.

**Installation:**

(1) Replace the No. 5 Guide Block Complete Assembly with a new one.

(2) Assemble the parts with Removal Steps (1) and (3) in reverse order.

**After replacement, perform the Tape Path Adjustment referring to Section 7-4.**



### 7-2-13. REPLACEMENT OF THE S REEL TABLE ASSEMBLY

Tools: Mode Selector (Ref. No. J-14)
Cassette Tape
Dial Tension Gauge (Ref. No. J-6)
Tension Measurement Reel (30 mm dia.) (Ref. No. J-7)
Sony Oil

**Removal:**

(1) Remove the Cassette-up Compartment Assembly referring to Section 2-16.

(2) Press the M-mode select button of the Mode Selector and set to the FF/REW mode.

(3) Remove the fixing screw and remove the Reel Table Stopper.

(4) Remove the S Reel Table Assembly.

**Note:** Be sure to hold the upper reel claw when removing the S Reel Table. (Note of figure)

**Installation:**

(1) Apply a half drop of oil on the top point of the Reel Shaft.

(2) Move the S Main Brake Assemvly in the direction of the arrow.

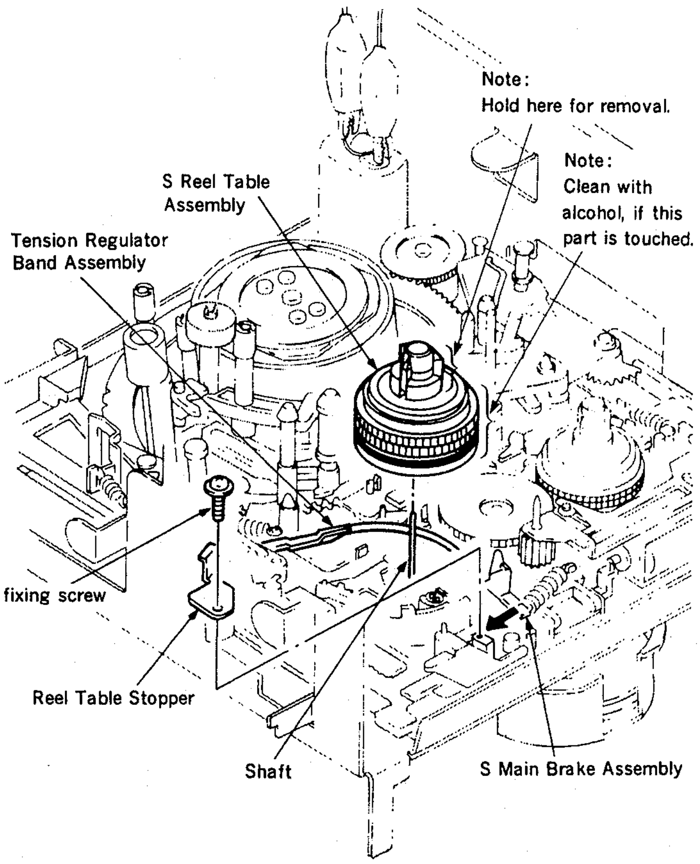
(3) Install the new S Reel Table Assembly while being carefull not to pinch the Tension Regulator Band Assembly.

(4) Install the Reel Table Stopper and tighten it with the fixing screw.

(5) Press the M-mode select button of the Mode Selector and set to the LOADING/UNLOADING mode.

(6) After replacement, perform the FWD running more than two minutes. Then, perform the FWD Back Tension Adjustment referring to Section 7-3-5.

(7) Install the Cassette-up Compartment Assembly referring to Section 2-16.


Note:
Hold here for removal.
Note:
Clean with alcohol, if this part is touched.
S Reel Table Assembly
Tension Regulator Band Assembly
fixing screw
Reel Table Stopper
Shaft
S Main Brake Assembly

### 7-2-14. REPLACEMENT OF THE T REEL TABLE ASSEMBLY

Tools: Mode Selector (Ref. No. J-13)
Sony Oil

**Removal:**

(1) Remove the Cassette-up Compartment Assembly referring to Section 2-16.

(2) Press the L-mode select button of the Mode Selector and set to the UNLOADING WAIT mode.

(3) Hook the spring which is hooked on the T.S Brake Assembly to the claw of the Lock Slider Assembly.

(4) Remove the stopper washer and remove the T.S Brake Assembly.

(5) Press the M-mode select button of the Mode Selector and set to the EJECT mode.

(6) Move the Drive Gear B Assembly in the direction of the arrow.

(7) Remove the T Reel Table Assembly.

**Note: Be sure to hold the upper reel claw when removing the T Reel Table. (Note of figure)**

**Installation:**

(1) Apply a half drop of oil on the top point of the Reel Shaft.

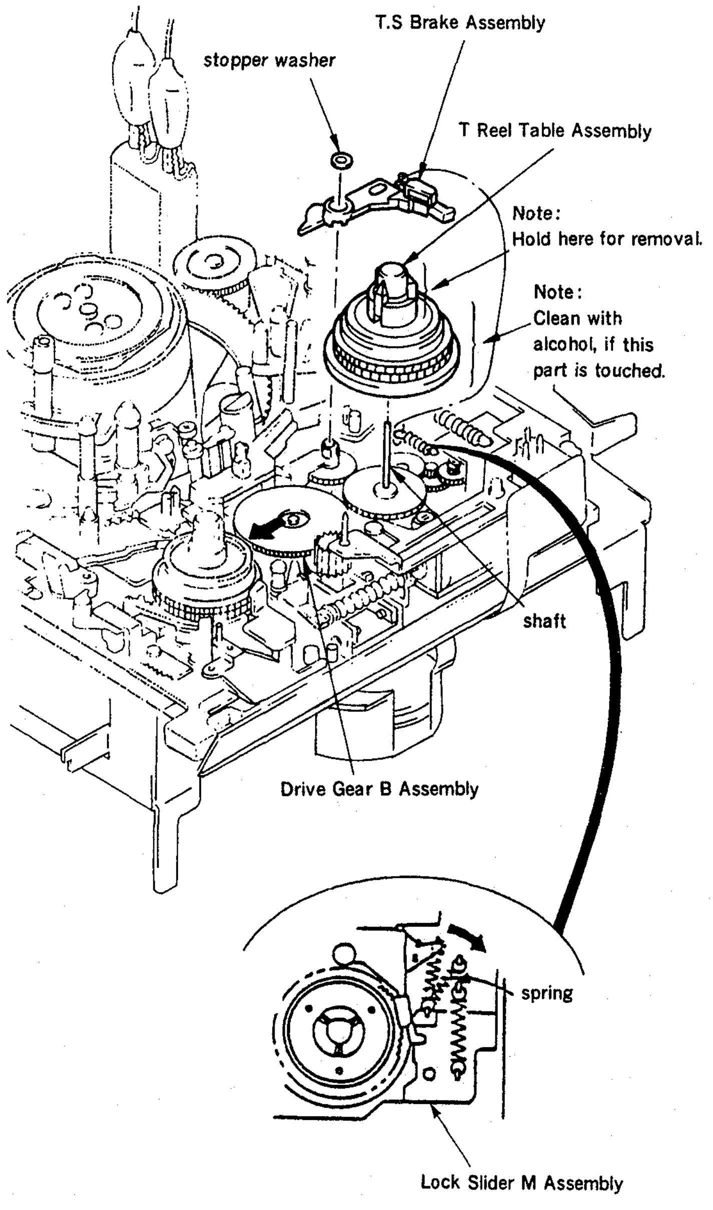
(2) Move the Drive Gear B Assembly in the direction of the arrow. (Check that the Mode Selector sets to EJECT mode.)

(3) Replace the T Reel Table Assembly with a new one.

(4) Assemble the parts with Steps (4) and (5) in reverse order.

(5) Set the L-mode to LOADING TOP mode and set the M-mode to LOADING/UNLOADING mode.

(6) Install the Cassette-up Compartment Assembly referring to Section 2-16.



Note:
Hold here for removal.

Note:
Clean with alcohol, if this part is touched.

### 7-2-15. REPLACEMENT OF THE PINCH PRESS ARM ASSEMBLY

Tool: Sony Oil

**Removal:**

(1) Open the MB-19P Board referring to Section 2-10.

(2) Hook the spring which is hooked to the Spring Hook Assembly to the Pinch Press Assembly as shown in the figure.

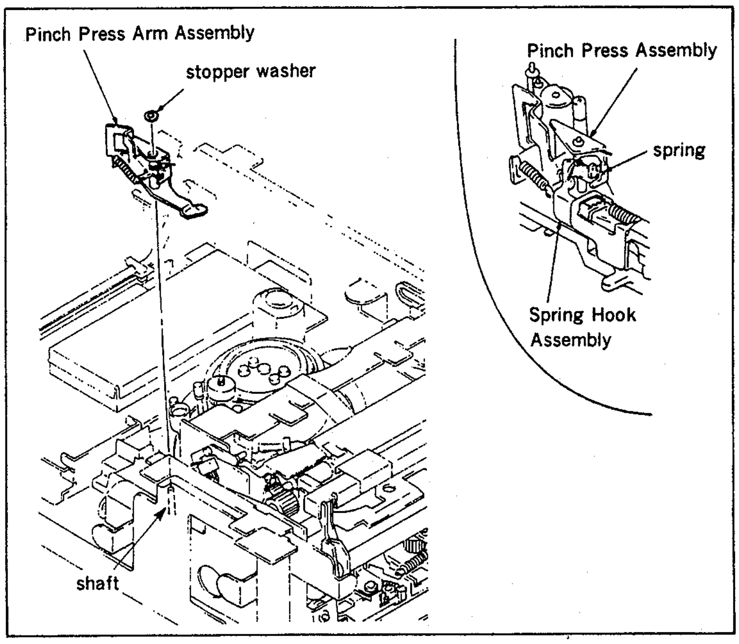
(3) Remove the stopper washer and remove the Pinch Press Arm Assembly.

**Installation:**

(1) Apply a half drop of oil on the shaft.

(2) Replace the Pinch Press Arm Assembly with a new one.

(3) Assemble the parts with Removal Steps (1) to (3) in reverse order.


Pinch Press Arm Assembly
stopper washer
shaft
Pinch Press Assembly
spring
Spring Hook Assembly

### 7-2-16. REPLACEMENT OF THE TENSION REGULATOR ARM ASSEMBLY

Tools: Mode Selector (Ref. No. J-13)
Sony Oil
Locking Compound

**Removal:**

(1) Remove the Cassette-up Assembly referring to Section 2-16.

(2) Replace the spring referring to Removal step (2) of Section 7-2-15.

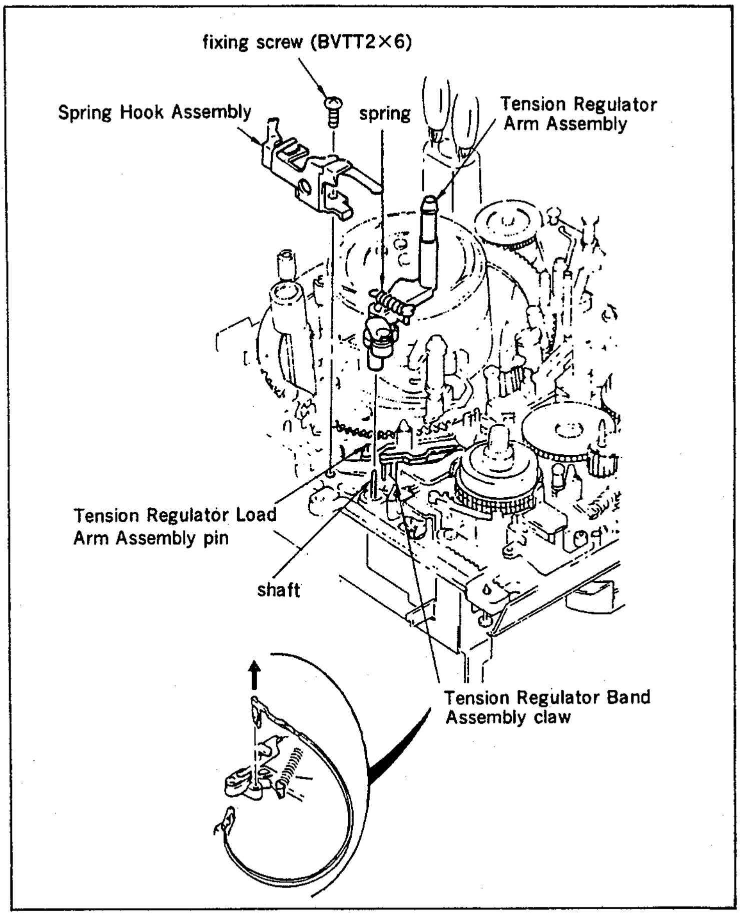
(3) Remove the spring which is hooked to the Tension Regulator Spring Hook Assembly.
(Make a note of the hooking position.)

(4) Remove the fixing screw and remove the Tension Regulator Spring Hook Assembly.

(5) Press the M-mode select button of the Mode Selector and set to the FF/REW mode.

(6) Remove the claw of the Tension Regulator Band Assembly.

(7) Remove the Tension Regulator Arm Assembly.


fixing screw (BVTT2×6)
Spring Hook Assembly
spring
Tension Regulator Arm Assembly
Tension Regulator Load Arm Assembly pin
shaft
Tension Regulator Band Assembly claw

**Installation:**

(1) Apply a half drop of oil on the shaft.

(2) Replace the Tension Regulator Arm Assembly with a new one.

(3) Install the Tension Regulator Arm Assembly while inserting the pin of the Tension Regulator Load Arm Assembly in the cam groove (on the back of the Arm) of the Tension Regulator Arm Assembly.

(4) Install the claw of the Tension Regulator Band Assembly.

**Note:** Do not touch the inside of the band and bend it.

(5) Press the M-mode select button of the Mode Selector and set to the $\boxed{\text{LOADING/UNLOADING}}$ mode.

(6) Install the Tension Regulator Spring Hook Assembly and tighten it with the fixing screw.

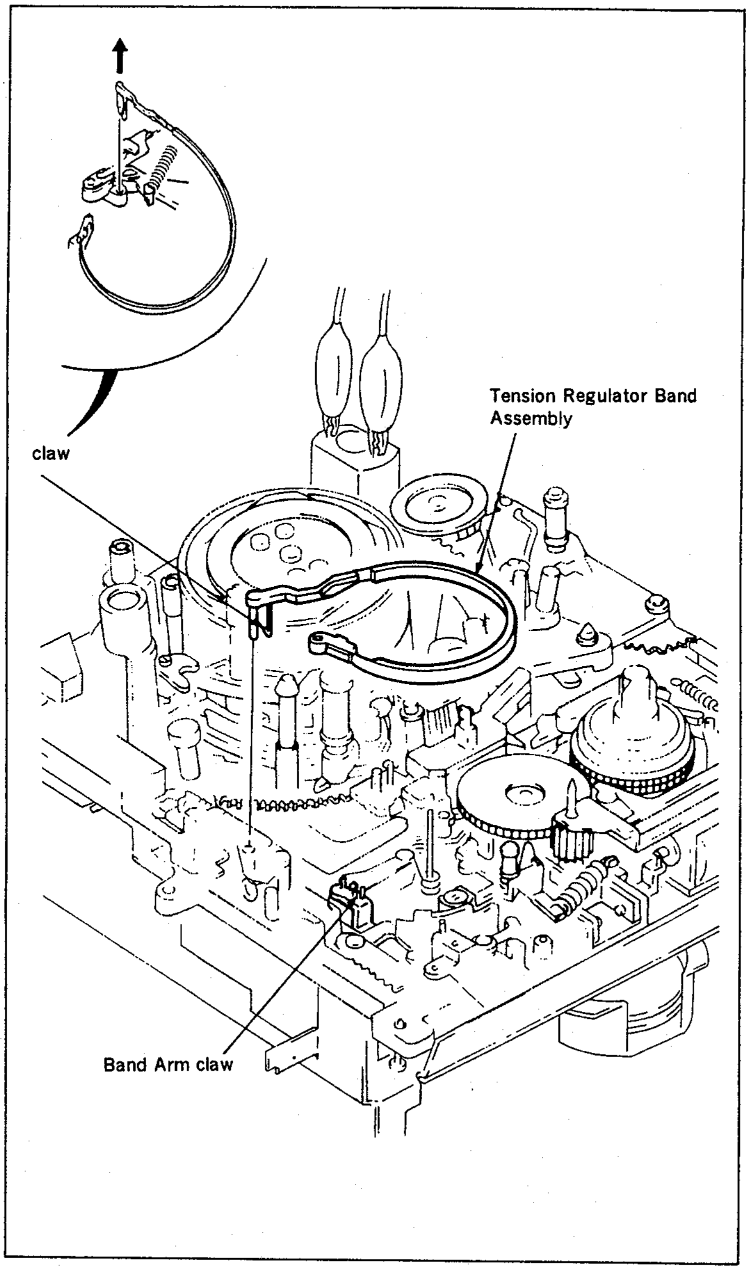
(7) Smear the Locking Compound to the head of the fixing screw.

(8) Assemble the Parts with Removal Steps (1) to (3) in reverse order.

**After replacement, perform the Tape Path Check referring to Section 7-4-6.**

### 7-2-17. REPLACEMENT OF THE TENSION REGULATOR BAND ASSEMBLY

Tools: Mode Selector (Ref. No. J-13)
Cassette Tape
Dial Tension Gauge (Ref. No. J-6)
Tension Measurement Reel (30 mm dia.) (Ref. No. J-7)



**Removal:**

(1) Remove the Cassette-up Compartment Assembly referring to Section 2-16.
(2) Remove the S Reel Table Assembly referring to Removal of Section 7-2-13.
(3) Release the claw of the Band Arm and remove one side of the Tension Regulator Band Assembly.
(4) Release the claw from the Tension Regulator Arm Assembly and remove the Tension Regulator Band Assembly.

**Installation:**

(1) Replace the Tension Regulator Band Assembly with a new one.
(2) Install the Tension Regulator Band Assembly with Removal Steps (3) and (4) in reverse order.

**Note:** Do not touch the inside of the band and bend it.

(3) Install the S Reel Table Assembly referring Installation of Section 7-2-13.
(4) After replacement, perform the FWD running more than two minutes and then perform the FWD Back Tension Adjustment referring to Section 7-3-5.
(5) Install the Cassette-up Compartment Assembly referring to Section 2-16.

### 7-2-18. REPLACEMENT OF THE L SLIDER ASSEMBLY

Tools: Mode Selector (Ref. No. J-13)
Sony Grease

**Removal:**

(1) Remove the Cassette-up Compartment Assembly referring to Section 2-16.

(2) Remove the Fly Wheel referring to Section 7-2-1.

(3) Remove the Threading Ring Assembly referring to Section 7-2-4.

(4) Remove the Entrance Guide (P) Assembly referring to 7-2-10.

(5) Remove the Slant Guide Block Assembly referring to Section 7-2-11.

(6) Press the L-mode select button of the Mode Selector and set to the $\boxed{\text{DRUM START}}$ mode.

(7) Remove the Slant Guide Drive Gear.

(8) Remove the two stopper washers from the L Slider Assembly.

(9) While pushing the projection of the RL Arm Assembly in the direction of the arrow, lift the right side of the L Slider Assembly and remove it from the shaft.

(10) Lift the right side of the L Slider Assembly as shown in figure 2 and remove the pin of the Tension Regulator Load Arm Assembly from the cam groove of the Tension Regulator Arm Assembly, and then remove the L Slider Assembly.

(11) Remove the stopper washer and remove the Tension Regulator Load Arm Assembly.

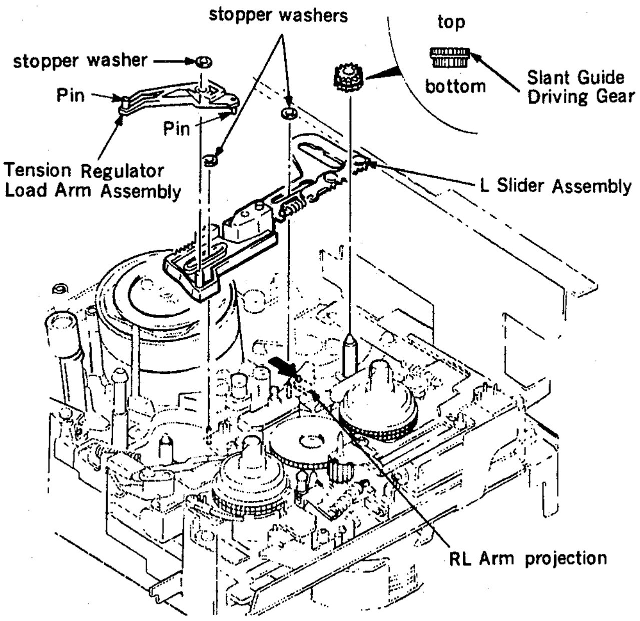

stopper washers
top
stopper washer
Pin
bottom
Slant Guide Driving Gear
Pin
Tension Regulator Load Arm Assembly
L Slider Assembly
RL Arm projection

Fig. 1

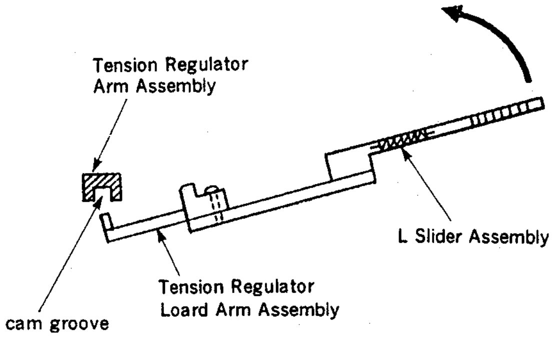

Tension Regulator Arm Assembly
L Slider Assembly
Tension Regulator Loard Arm Assembly
cam groove

Fig. 2

**Installation:**

(1) Replace the L Slider Assembly with a new one and smear Sony Grease to the three longitudinal holes as shown in figure 3.

(2) Assemble the parts with Removal Steps (8) to (11) in reverse order.

**Note:** When inserting the pin of the Tension Regulator Load Arm Assembly in the cam groove of the Tension Regulator Arm Assembly, insert the another pin into the groove of the M Slider.

(3) Press the L-mode select button of the Mode Selector and align the right edges of the L Slider Assembly and the Lock Slider M Assembly. (fig. 4)

(4) Engage the Slant Guide Drive Gear with L Slider Assembly so that the notch of the Drive Gear is 1 tooth away from the left and gear of the L Slider Assembly as shown in the figure 4.

(5) Assemble the parts with Removal Steps (1) to (5) in reverse order.

**After replacement, perform the Tape Path Adjustment referring to Section 7-4.**

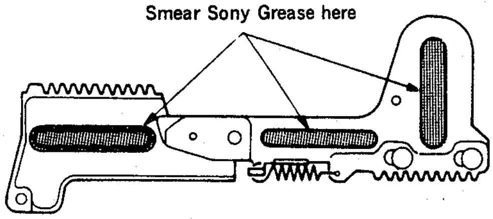

Smear Sony Grease here

Fig. 3

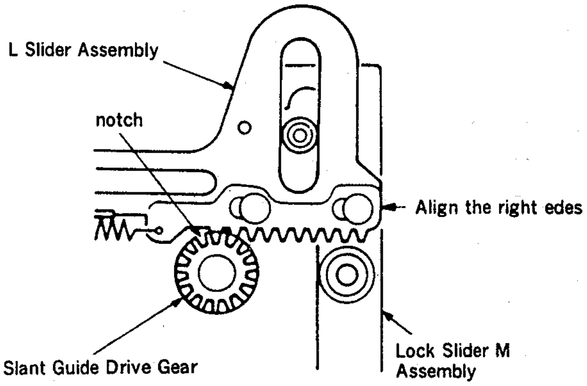

L Slider Assembly
notch
Align the right edes
Slant Guide Drive Gear
Lock Slider M Assembly

Fig. 4

### 7-2-19. REPLACEMENT OF THE L-SWITCH ASSEMBLY

Tools: Mode Selector (Ref. No. J-13)
Sony Oil
Sony Grease

**Removal:**

(1) Remove the Cassette-up Compartment Assembly referring to Section 2-16.
(2) Remove the Fly Wheel referring to Section 7-2-1.
(3) Remove the Threading Ring Assembly referring to Section 7-2-4.
(4) Remove the Entrance Guide (P) Assembly referring to Section 7-2-10.
(5) Remove the Slant Guide Block Assembly referring to Section 7-2-11.
(6) Remove the L Slider Assembly referring to Section 7-2-18.
(7) Remove the Lock Slider Retainer.
(8) Remove the tension spring which is hooked to the Lock Slider A.
(9) Remove the fixing screw and remove the Lock Slider A.
(10) Remove the stop washer of the Drive Changer Assembly and remove the torsion spring.
(11) Remove the Drive Changer Assembly.
(12) Disconnect the connector (6P) on the L-switch Assembly.
(13) Remove the two fixing screws and remove the L-switch Assembly.

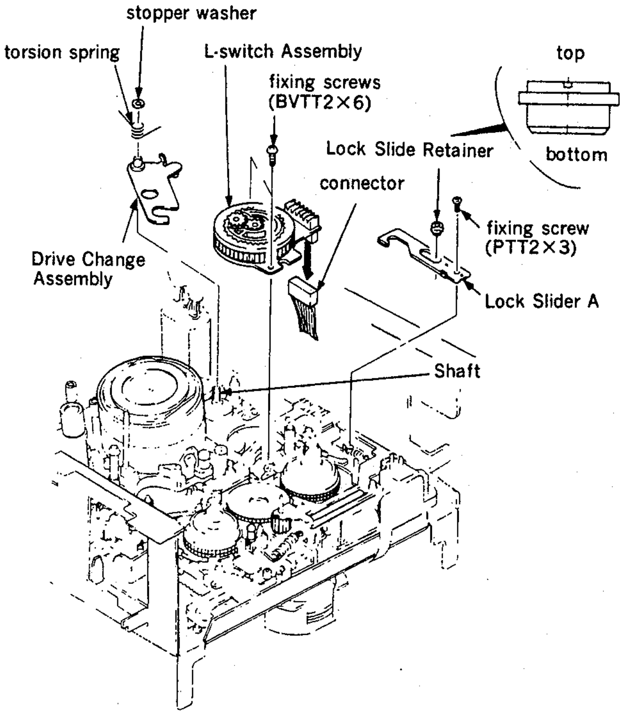

stopper washer
torsion spring
L-switch Assembly
top
fixing screws
(BVTT2×6)
Lock Slide Retainer
bottom
connector
fixing screw
(PTT2×3)
Drive Change
Assembly
Lock Slider A
Shaft

Fig. 1

**Installation:**

(1) Replace the L-switch Assembly with a new one and apply a half drop of oil on the Planetary Roller Shaft.

(2) Assemble the parts with Removal Steps (12) and (13) in reverse order.

(3) Press the L-mode select button (right or left) of the Mode Selector and check that the L-switch Assembly rotates.

(4) Apply a half drop of oil on the fixing shaft of the Drive Changer Assembly.

(5) Smear Sony Grease to the U groove of the Drive Changer Assembly as shown in figure 2.

(6) Assemble the parts with Removal Steps (10) and (11) in reverse order.

(7) Press the L-mode select button (right or left) of the Mode Selector and check that the L-switch Assembly rotates.

(8) Assemble the parts with Removal Steps (7) to (9) in reverse order.

(9) Press the L-mode select button (righ or left) of the Mode Selector so that the Planetary Roller Shaft is placed to the position shown in figure 3.

(10) Assemble the parts with Removal Steps (1) to (6) in reverse order.

**After replacement, perform the Tape Path Adjustment referring to Section 7-4.**

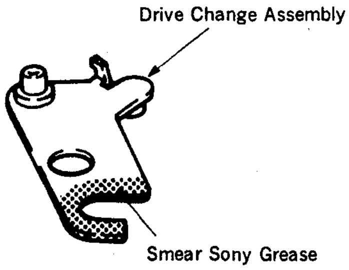

Drive Change Assembly
Smear Sony Grease

Fig. 2

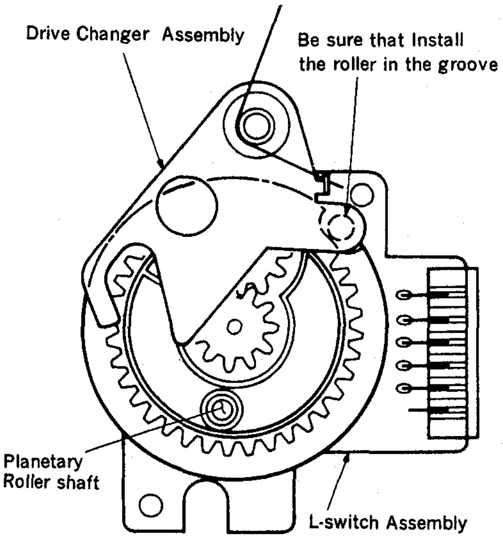

Drive Changer Assembly
Be sure that Install the roller in the groove
Planetary Roller shaft
L-switch Assembly

Fig. 3

## 7-2-20. REPLACEMENT OF THE PLUNGER SOLENOID

**Removal:**

(1) Open the MB-19P Board referring to Section 2-10.

(2) Remove the Cassette-up Compartment Assembly referring to Section 2-16.

(3) Remove the spring which is hooked to the Lock Slider M Assembly.

(4) Remove the two stopper washers.

(5) Remove the fixing screw and remove the Lock Slider M Assembly.

(6) Unsolder the three terminals of the Plunger Solenoid of the FP-206 Board.

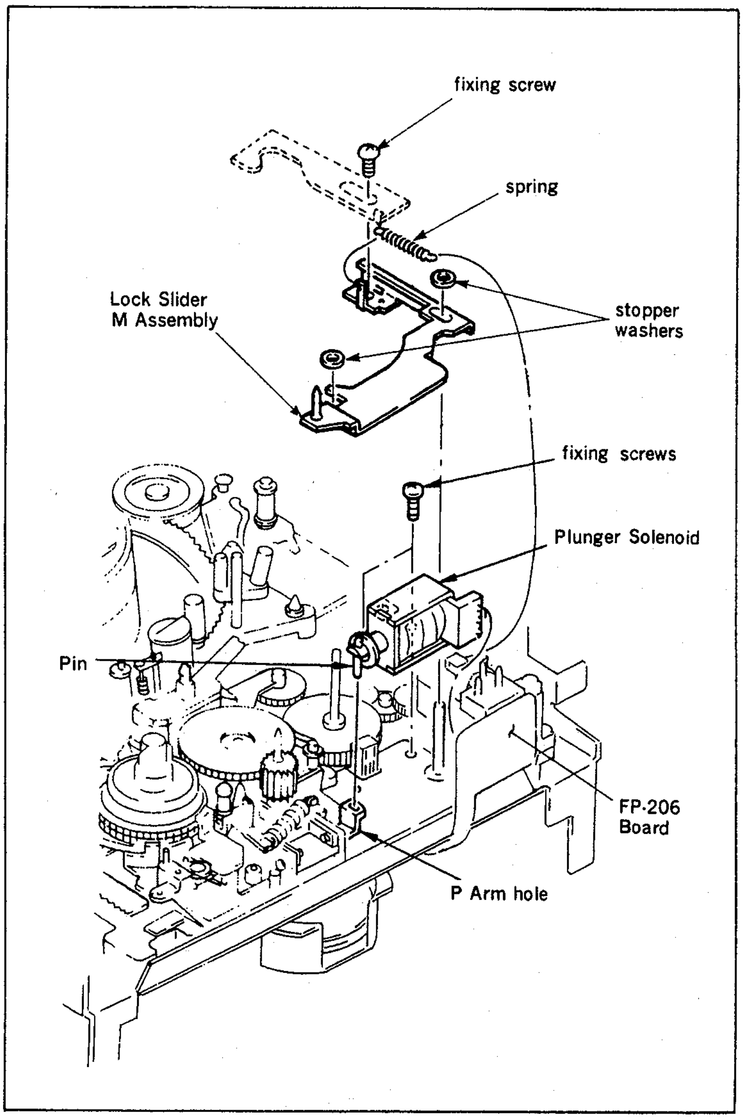
(7) Remove the two fixing screws and remove the Plunger Solenoid. (At this time, be careful not to damage the T Reel Assembly with a screwdriver, and do not touch it.)

**Installation:**

(1) Replace the Plunger Solenoid with a new one.

(2) Insert the pin of the Plunger Solenoid into the hole of the P Arm and install the new Plaunger Solenoid with the two fixing screws. (At this time, be careful not to damage the T Reel Assembly with a screwdriver and do not touch it.)

(3) Assemble the parts with Removal Steps (1) to (6) in reverse order.


fixing screw
spring
Lock Slider M Assembly
stopper washers
fixing screws
Plunger Solenoid
Pin
FP-206 Board
P Arm hole

## 7-2-21. REPLACEMENT OF THE M-SWITCH ASSEMBLY

Tools: Mode Selector (Ref. No. J-13)
Sony Oil

**Removal:**

(1) Remove the Cassette-up Compartment Assembly referring to Section 2-16.

(2) Disconnect the connector (CN301) on the RS-31 Board.

(3) Remove the T Reel Table Assembly referring to Section 7-2-14.

(4) Remove the stopper washer and remove the Drive Gear B Assembly.

(5) Remove the LD-1 Board. (fig. 1)

(6) Remove the Lock Slider M Assembly referring to Removal Steps (3) to (5) of Section 7-2-20.

(7) Remove the tension spring and remove the B Release Arm Assembly.

(8) Check that the M-mode is put into EJECT mode.

(9) Remove the stopper washer and remove the Mode Output Gear.

(10) Release the two claws of the Control Motor Cover and remove the Push Switch.

(11) Disconnect the connctor (6P) on the M-switch Assembly.

(12) Remove the two fixing screws and remove the Control Motor Cover L.

(13) Remove the fixing screw and while lifiting up the M-switch Assembly, push the T.S Release Arm in the direction of the arrow A. Then push the T Main Brake Assembly in the direction of the arrow B and remove the M-switch Assembly.

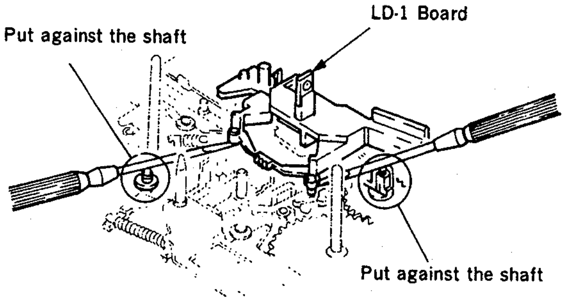

LD-1 Board
Put against the shaft
Put against the shaft

Fig. 1

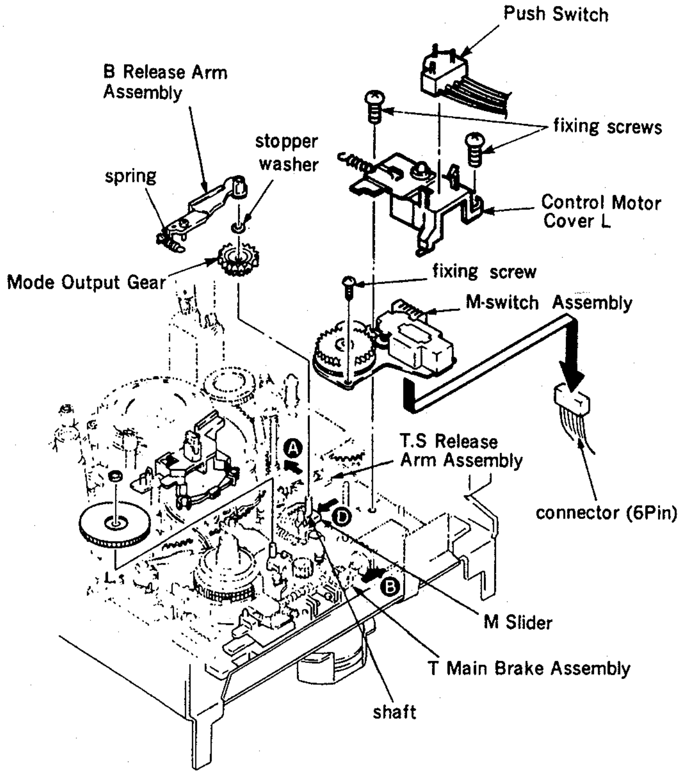

Push Switch
B Release Arm Assembly
fixing screws
stopper washer
spring
Control Motor Cover L
Mode Output Gear
fixing screw
M-switch Assembly
A
T.S Release Arm Assembly
D
connector (6Pin)
B
M Slider
T Main Brake Assembly
shaft

Fig. 2

**How to removal the DC Motor:**

(1) Unsolder the two terminals at the C points as shown in figure 3 and remove the DC Motor from the MS-4 Board. (fig. 3)

**Installation:**

(1) Replace the M-switch Assembly with a new one.

(2) Assemble the parts with Removal Steps (10) to (13) in reverse order.

(3) Check that the mechanical block is put into EJECT mode.

(4) Check that the M Slider moves fully in the direction of arrow D. (fig. 2)

(5) Apply a half drop of oil on the shaft of the Mode Output Gear. (fig. 2)

(6) Install the Mode Output Gear so that the center of the M-switch Assembly Gear and the two positioning holes are lined up. (fig. 4)

(7) Install the stopper washer to the shaft of the Mode Output Gear.

(8) Press the M-mode select button of the Mode Selector and set to the LOADING/UNLOADING mode.

(9) Assemble the parts with Removal Steps (1) to (7) in reverse order.

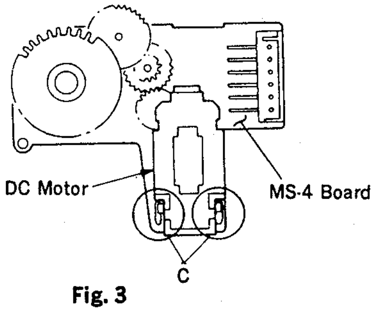

DC Motor
MS-4 Board
C

Fig. 3

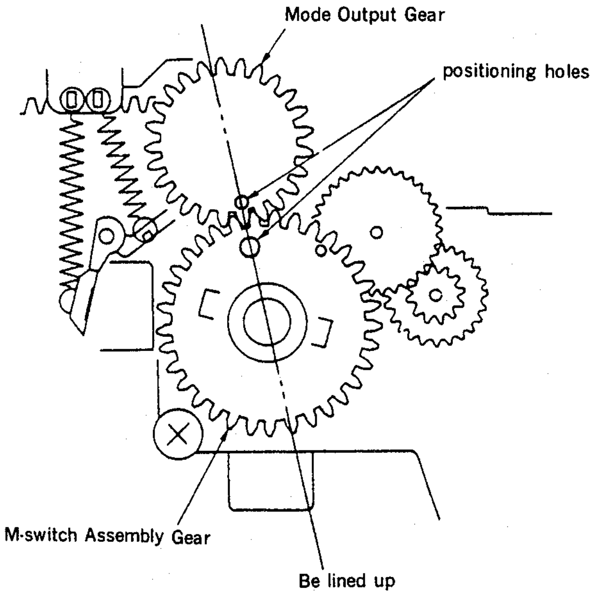

Mode Output Gear
positioning holes
M-switch Assembly Gear
Be lined up

Fig. 4

### 7-2-22. REPLACEMENT OF THE M SLIDER

Tools: Mode Selector (Ref. No. J-13)
Sony Oil
Sony Grease

**Removal:**

(1) Remove the Cassette-up Compartment Assembly referring to Section 2-16.

(2) Remove the Threading Ring Assembly referring to Section 7-2-4.

(3) Remove the S Reel Table Assembly referring to Section 7-2-13.

(4) Remove the T Reel Table Assembly referring to Section 7-2-14.

(5) Remove the Pinch Press Arm Assembly referring to Section 7-2-15.

(6) Remove the Tension Regulator Arm Assembly referring to Section 7-2-16.

(7) Remove the Tension Regulator Band Assembly referring to Section 7-2-17.

(8) Remove the Drive Gear (B) Assembly, LD-1 Board, Lock Slider M Assembly and B Release Arm Assembly referring to Removal Steps (2) to (7) of Section 7-2-21.

(9) Remove the Tension Regulator Load Arm Assembly referring to Removal Step (11) of Section 7-2-18.

(10) Remove the tension spring which is hooked to the S Main Brake Assembly.

(11) Remove the two stopper washers and remove the S Main Brake Assembly and T Main Brake Assembly.

(12) Operate the Mode Selector and set the L-mode to LOADING TOP mode and the M-mode to LOADING/UNLOADING mode.

(13) Remove the fixing screw and remove the Drive Complete Assembly.

(14) Remove the Mode Output Gear referring to Removal Steps (8) and (9) of Section 7-2-21.

(15) Remove the two tension springs which are hooked to the REW Brake Assembly and B Release Slider.

(16) Remove the REW Brake Assembly and remove the REW Brake Spacer.

(17) Remove the stopper washer and remove the B Release Slider.

(18) Remove the stopper washer and remove the Ring Lock Spring and RL Arm.

(19) Move the M Slider to the right.
At this time, leave about 5mm space between the fixing shaft and left edge of M Slider's longitudinal hole.

(20) Remove the E ring and remove the Pinch Press Lever Assembly.

(21) Remove the tension spring and remove the Hard Brake S.

(22) Remove the stopper washer and push the Mode Arm in the direction of the arrow. Lift up the left side of the M Slider to remove.

**Installation:**

(1) Replace the M Slider with a new one and smear grease. (fig. 2)

(2) Push the Mode Arm in the direction of the arrow. (fig. 1) While being careful to the positional relationship with other parts install the M Slider. Then install the stopper washer. (fig. 3)

(3) Install the Hard Brake S and hook the tension spring to it.

(4) Smear grease to the Pinch Press Lever Assembly. (fig. 4)

(5) Apply a half drop of oil to the part under the groove of Pinch Press Lever Assembly's shaft.

(6) Assemble the parts with Removal Steps (16) to (18) and (20) in reverse order.

(7) Hook the two tension springs to the REW Brake Assembly and B Release Slider.

**Note:** Hook the two tension springs as follows and be careful not to mix them.

- B Release Slider Spring: diameter 2 mm, wire diameter 0.18mm
- REW Brake Assembly Spring: diameter 1.6 mm, wire diameter 0.12mm

(8) Move the M Slider to the left fully.

(9) Press the M mode select button of the Mode Selector and set to EJECT mode.

(10) Install the Mode Output Gear referring to Installation Steps (5) to (7) in Section 7-2-21.

(11) Press the M mode select button of the Mode Selector and set to the LOADING/UNLOADING mode.

(12) Insert the horizontal shaft of the Drive Complete Assembly into the groove of the Upper and Lower Selection Arm and tighten the fixing screw.

(13) Assemble the parts with Removal Steps (1) to (11) in reverse order.

**After replacement, perform the Tape Path Check referring to Section 7-4-6.**

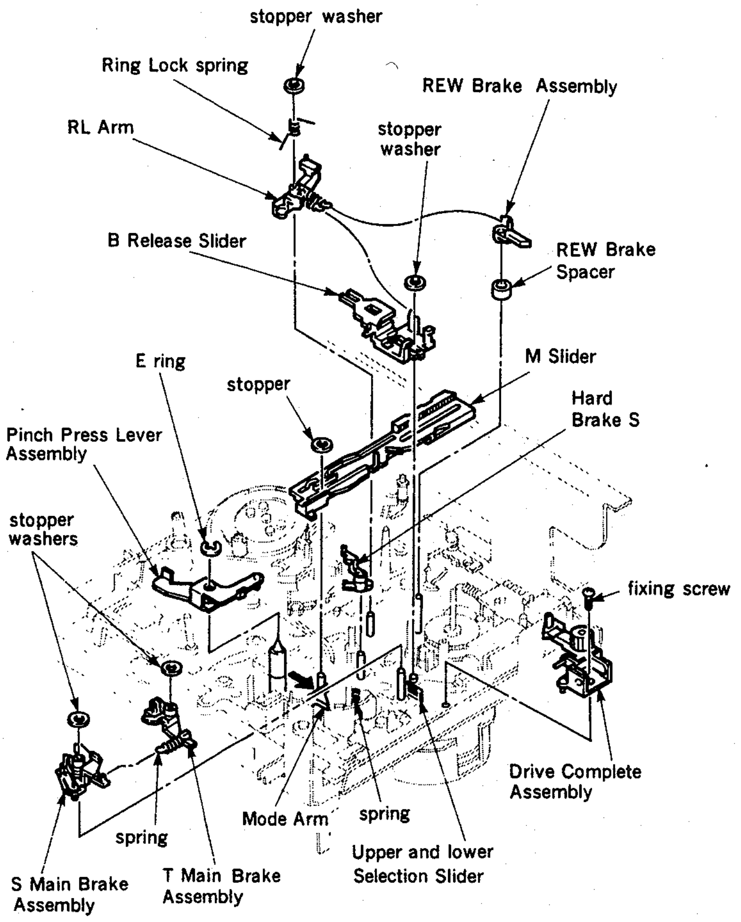

stopper washer
Ring Lock spring
REW Brake Assembly
RL Arm
stopper washer
B Release Slider
REW Brake Spacer
E ring
stopper
M Slider
Hard Brake S
Pinch Press Lever Assembly
stopper washers
fixing screw
Drive Complete Assembly
Mode Arm
spring
spring
Upper and lower Selection Slider
S Main Brake Assembly
T Main Brake Assembly

Fig. 1

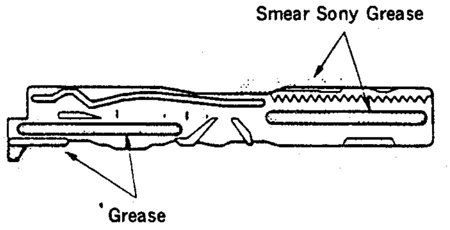

Smear Sony Grease
Grease

Fig. 2

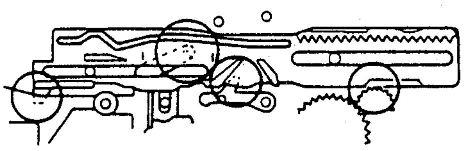


Fig. 3

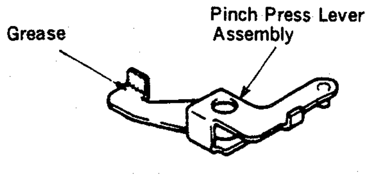

Grease
Pinch Press Lever Assembly

Fig. 4

### 7-2-23. INSTALLATION OF THE BLOCK PLATE ASSEMBLY

When removing the Block Plate Assembly, installing procedures are as follows:

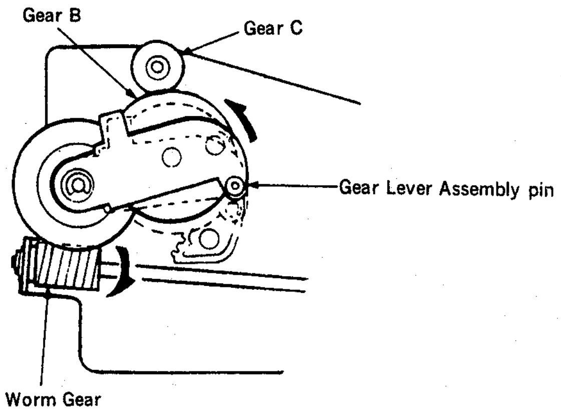
(1) Push the Lock Slider Assembly in the direction of the arrow and lift the Cassette Holder.

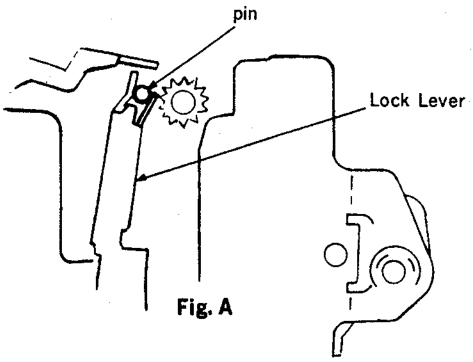
(2) Check that . the positional relationship between the Lock Lever and pin is as shown in figure A.

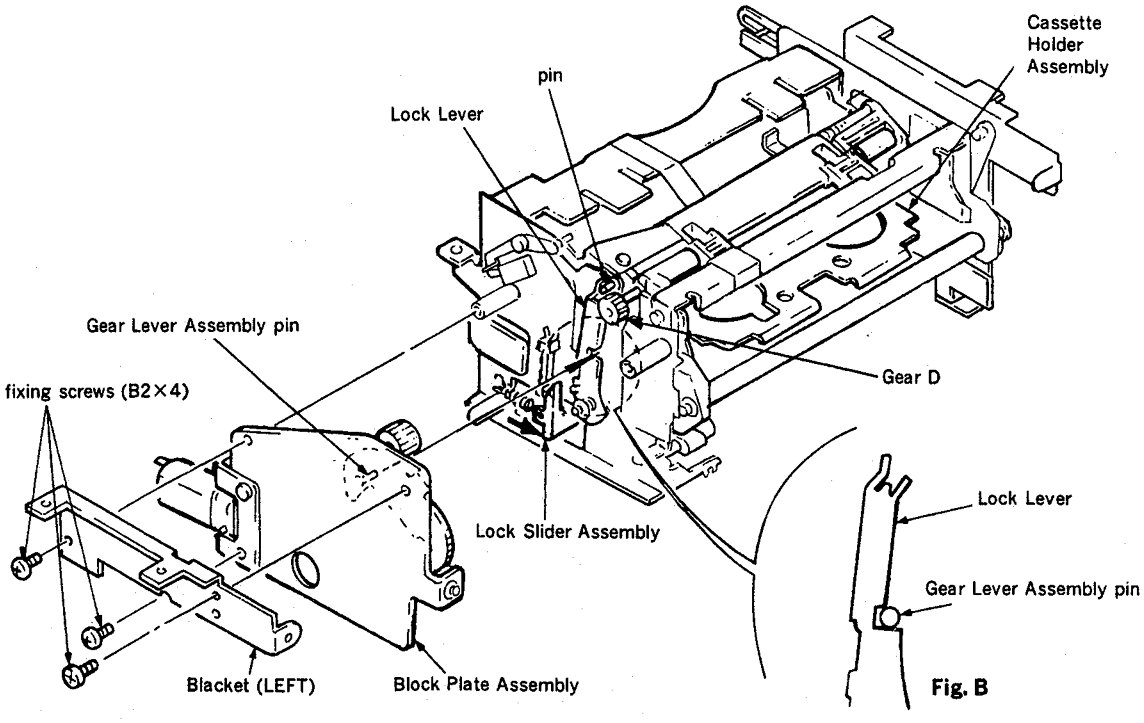
(3) Turn the Worm Gear in the direction of the arrow and engage the Gear B and Gear C.

(4) While checking that positional relationship between the pin of the Gear Lever Assembly and Lock Lever is as shown in figure B, fix the Block Plate Assembly and Blacket (LEFT) with three fixing screws.

(5) Check that the Gear C and D are engaged.


Gear B
Gear C
Gear Lever Assembly pin
Worm Gear


pin
Lock Lever
Fig. A

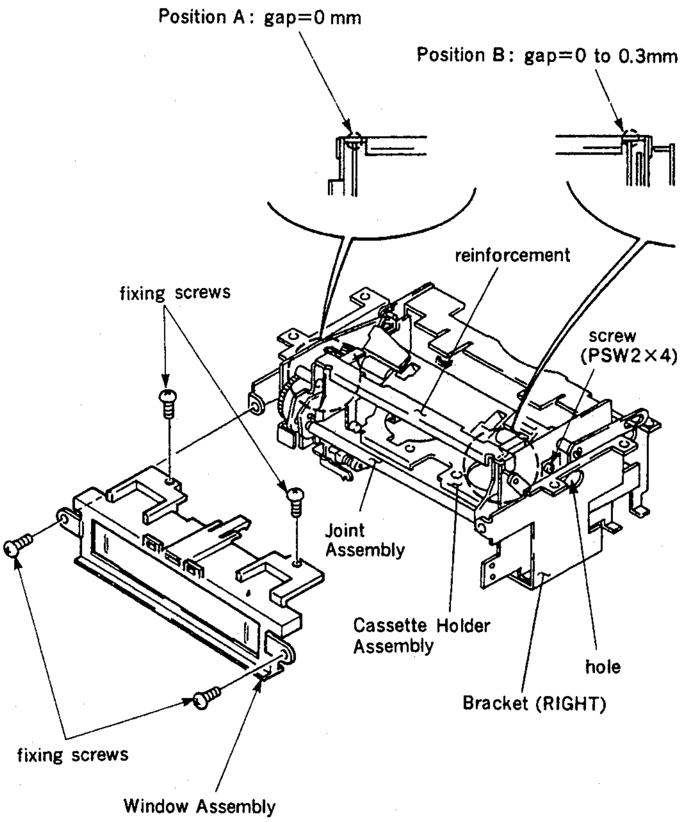

Cassette Holder Assembly
pin
Lock Lever
Gear Lever Assembly pin
fixing screws (B2×4)
Gear D
Lock Slider Assembly
Blacket (LEFT)
Block Plate Assembly
Lock Lever
Gear Lever Assembly pin
Fig. B

## 7-2-24. PARALLELISM ADJUSTMENT OF THE CASSETTE HOLDER BLOCK

When the following trouble happen, perform this adjustment. When inserting or ejecting the cassette, it is caught in the Cassette Holder Assembly or Joint Assembly, etc., and does not move smoothly.

Adjustment procedure:

(1) Open the MB-19P Board referring to Section 2-10.
(2) Remove the Cassette-up Compartment Assembly referring to Section 2-16.
(3) Remove the four fixing screws and remove the Window Assembly.
(4) Loosen the screw (PSW2 X 4) from the hole of the Braket (RIGHT).
(5) Push the bottom of the Cassette Holder Assembly against the reinforcement, and adjust the position so that there is no clearance at points A and B.
(6) Tighten the screw (PSW2 X 4) and smear locking compound to it.
(7) Assemble the parts with Steps (1) to (3) in reverse order.


Position A: gap=0 mm
Position B: gap=0 to 0.3mm
reinforcement
fixing screws
screw (PSW2×4)
Joint Assembly
Cassette Holder Assembly
hole
Bracket (RIGHT)
fixing screws
Window Assembly

## 7-3. TORQUE AND BACK TENSION ADJUSTMENT

After removing the Mechanical Deck and Cassette-up Compartment from the unit referring to Section 2-5 and 2-16, perform these adjustments except for Section 7-3-4.

### 7-3-1. CHECK OF THE MAIN BRAKE TORQUE

**1. S Main Brake Torque**

**Tools:** Mode Selector (Ref. No. J-13)
Tension Measurement Reel
(Ref. No. J-8)
Dial Tension Gauge (Ref. No. J-6)

**Mode:** Press the M-mode select button of the Mode Selector and set to the FF/REW mode.

**Check Procedure:**

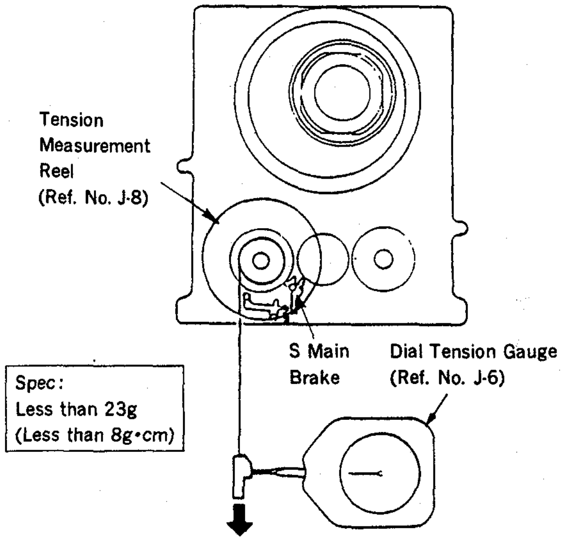
(1) Set the Tension Measurement Reel on the S Reel Table and put the Dial Tension Gauge at the end of the string.

(2) Pull out the Dial Tension Gauge in the direction of the arrows and check that those readings meet the required specifications as shown in figure 1 and 2.

**Note:** Both S Main Brake and S Soft Brake work in the FF/REW mode.

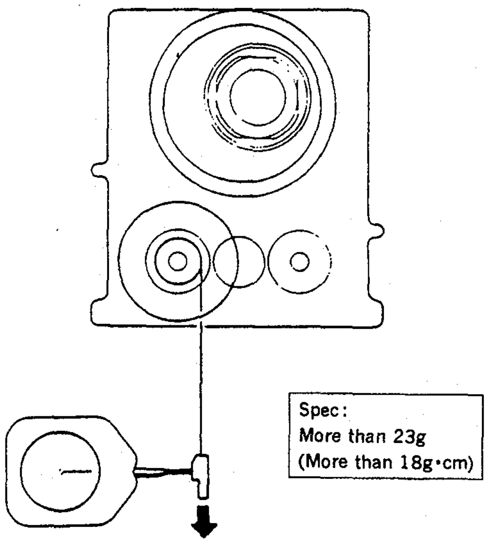
**Adjustment Procedure:**

(1) If the reading do not meet the required specification, replace the S Main Brake or S Reel Table Assembly.



Spec:
Less than 23g
(Less than 8g•cm)

Fig. 1



Spec:
More than 23g
(More than 18g•cm)

Fig. 2

## 2. T Main Brake Torque

**Tools:** Mode Selector (Ref. No. J-13)
Tension Measurement Reel
(Ref. No. J-8)
Dial Tension Gauge (Ref. No. J-6)

**Mode:** Press the M-mode select button of the Mode Selector and set to the FF/REW mode.

**Check Procedure:**

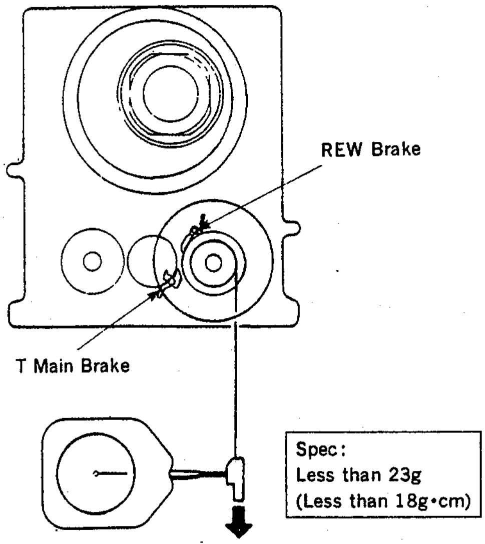
(1) Set the Tension Measurement Reel on the T Reel Table and put the Dial Tension Gauge at the end of the string.

(2) Pull out the Dial Tension Gauge in the direction of the arrows and check that these readings meet the required specifications as shown in figure 1 and 2.

**Note:** Both T Main Brake and REW Brake work in the FF/REW mode.

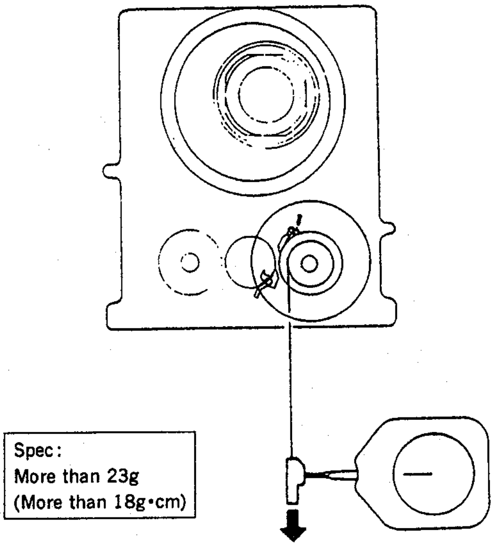
**Adjustment Procedure:**

(1) If the reading do not meet the required specification, replace T Main Brake or T Reel Table.



Spec:
Less than 23g
(Less than 18g•cm)

Fig. 1



Spec:
More than 23g
(More than 18g•cm)

Fig. 2

## 7-3-2. CHECK OF THE SOFT BRAKE TORQUE

### 1. S Side Soft Brake Torque

**Tools:** Mode Selector (Ref. No. J-13)
Tension Measurement Reel
(Ref. No. J-8)
Dial Tension Gauge (Ref. No. J-6)

**Mode:** Press the M-mode select button of the Mode Selector and set to the FF/REW mode.

**Check Procedure:**

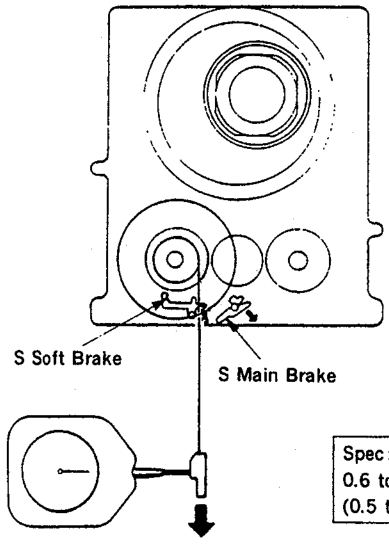
(1) Set the Tension Measurement Reel on the S Reel Table and put the Dial Tension Gauge at the end of the string.

(2) Release the S Main Brake by hand.

(3) While releasing the S Main Brake, pull out the Dial Tension Gauge in the direction of the arrow. Check that this reading meets the required specification.

**Adjustment Procedure:**

(1) Adjust the strength of S Soft Brake Spring by streching or cutting.

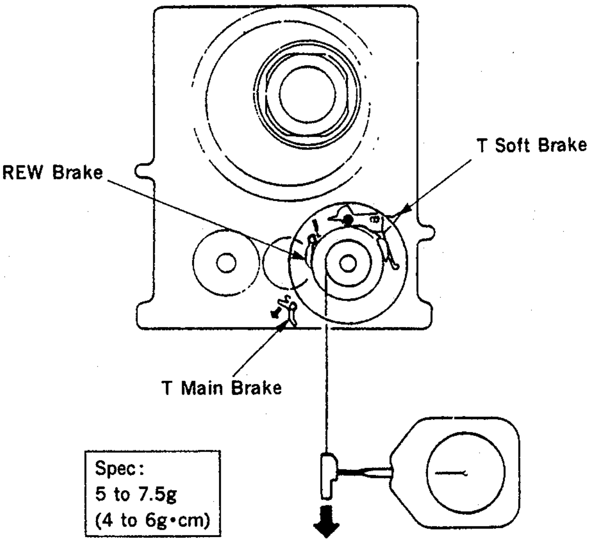


Spec:
0.6 to 3.1g
(0.5 to 2.5g•cm)

### 2. T Side Soft Brake Torque

**Tools:** Mode Selector (Ref. No. J-13)
Tension Measurement Reel
(Ref. No. J-8)
Dial Tension Gauge (Ref. No. J-6)

**Mode:** Press the M-mode button of the Mode Selector and set to the $\boxed{\text{RVS}}$ mode.



**Check Procedure:**

(1) Set the Tension Measurement Reel on the T Reel Table and put the Dial Tension Gauge at the end of the string.
(2) Release the T Main Brake by hand.
(3) While releasing the S Main Brake, pull out the Dial Tension Gauge in the direction of the arrow. Check that this reading meets the required specification.

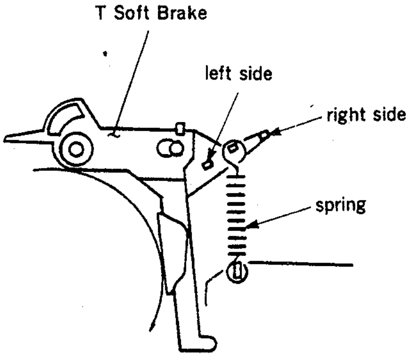
**Note:** Both T Soft Brake and REW Brake work in the RVS mode.

**Adjustment Procedure:**

(1) Change the position of the tension spring which is hooked to the T Soft Brake.

. more than the spec. : Hook the left side.
. less than the spec. : Hook the right side.

(2) If the reading do not meet the required specification with Step (1), replace the T Soft Brake or REW Brake, or both of them.



### 7-3-3. CHECK OF THE REW BRAKE TORQUE

**Tools:** Mode Selector (Ref. No. J-13)
Tension Measurement Reel
(Ref. No. J-8)
Dial Tension Gauge (Ref. No. J-6)

**Mode:** Press the M-mode select button of the Mode Selector and set to the FF/REW mode.

**Check procedure:**

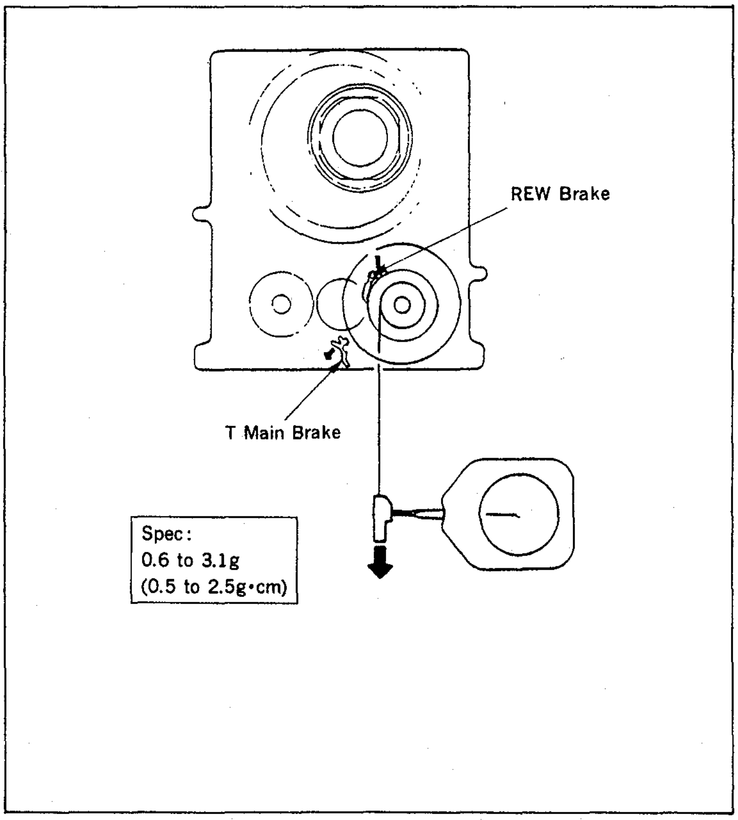
(1) Set the Tension Measurement Reel on the T Reel Table and put the Dial Tension Gauge at the end of the string.

(2) Release the T Main Brake by hand.

(3) While the releasing the T Main Brake, pull out the Dial Tension Gauge in the direction of the arrow. Check that this reading meet the required specification.

**Adjustment Procedure:**

(1) Adjust the strength of the tension spring by streching or cutting, or replace the REW Brake with a new one.



### 7-3-4. CHECK BY THE FWD, RVS TAKE-UP TORQUE CASSETTE

**Tool:** FWD, RVS take-up torque cassette
(Ref. No. J-12)

**Mode:** PLAY mode

**Check Procedure:**

(1) Insert the FWD, RVS take-up torque cassette in the unit.

(2) Put the unit into the PLAY mode, check that the torque reading of the T Reel Table meets the required specification.

Spec. : 9.5 to 15.5 g.cm

(3) Put the unit into the PLAY mode and press the REW button. Immediately check that the torque reading of the S Reel Table meets the required specification.

Spec. : 17 to 23 g.cm

**Adjustment procedure:**

(1) If the readings do not meet the required specifications, replace each Reel Table Assembly.

### 7-3-5. FWD BACK TENSION ADJUSTMENT

**Tools:** Mode Selector (Ref. No. J-13)
Tension Measurement Reel
(Ref. No. J-7)
Dial Tension Gauge (Ref. No. J-6)

**Mode:** Press the L-mode select button of the Mode Selector and set to the LOADING END Press the M-mode select button and set to the FWD mode.

**Check Procedure:**

(1) Remove the Cassette-up Compartment reffering to Section 2-16.

(2) Press the L-mode select button of the Mode Selector and set to the LOADING END mode. Press the M-mode select button and set to the FWD mode.

(3) Loosen the fixing screw and move the Band Adjustment Plate in the direction of the arrow A. Check the possible movement range $\theta$ of the No. 1 Guide.

(4) Tighten the fixing screw where the No. 1 Guide Cap is positioned at one-third of $\theta$.

(5) Set the Tension Measurement Reel on the S Reel Table and trail the tape along the No. 1 Guide, No. 2 Guide, No. 3 Guide, IP Roller Guide and Drum.

(6) Put the Dial Tension Geauge at the end of the tape. Pull out the Dial Tension Gauge at a contact speed approx. 15cm/sec. in the direction of the arrow B. At this time, check that this reading meets the required specification.

Spec. : 12 to 14 g

**Adjustment Procudure:**

(1) If the reading do not meet the required specification, change the position of the tension spring which is hooked to the Tension Regulator Spring Hook Assembly.
. more than the Spec. :
the direction of the arrow C
. less than the Spec. :
the direction of the arrow D

**NOTE:**

When replacing the parts as follows, perform the FWD Back Tension Adjustment.

. Tension Regulator Band Assembly
. S Reel Table Assembly
. Entrance Guide (P) Assembly

When replacing these parts, perform the free running in the FWD mode for two minutes and then adjust the FWD Back Tension.

**Adjustment Procudure:**

(1) Install the Cassette-up Compartment Assembly with Removal Steps Section 2-16 in referse order.

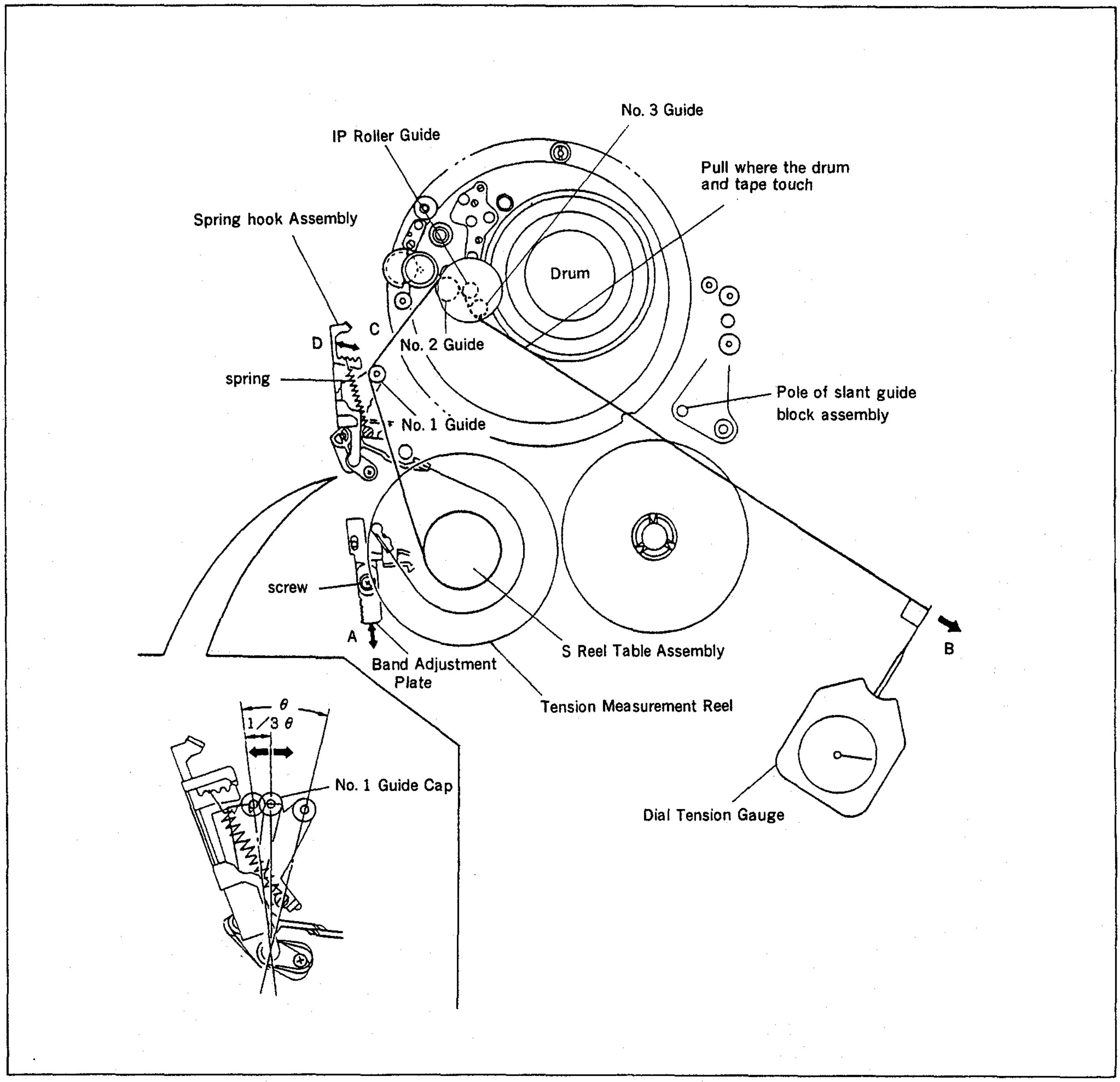
(2) Install the Mechanical Deck with Removal Steps Section 2-5 in reverse order.

(3) Insert the cassette tape in the unit and perform the FWD running for two minutes.

(4) Eject the cassette tape.

(5) Remove the Mechanical Deck from the unit referring to Section 2-5.

(6) Perform the FWD Back Tension Adjustment referring to Section 7-3-5.


No. 3 Guide
IP Roller Guide
Pull where the drum and tape touch
Spring hook Assembly
Drum
D
C
No. 2 Guide
spring
No. 1 Guide
Pole of slant guide block assembly
screw
A
Band Adjustment Plate
S Reel Table Assembly
B
Tension Measurement Reel
θ
1/3 θ
No. 1 Guide Cap
Dial Tension Gauge

## 7-4. TAPE PATH ADJUSTMENT

After check that the Electrical Adjustments (Sections 8) are completed, perform this adjustment.

**Alignment Information**

Track Shift Tool

The 8 mm Video System employs a high precision tracking ATF (Auto Track Finding) system which instantaneously controls the tape running speed with four kinds of pilot signals. In this way, the Tracking Adjustment Knob is unnecessary and it is possible to trace with accuracy. On the other hand, the adjustment of the Tape Path System was difficult in the ATF system. It was impossible to adjust perfectly because the ATF system automatically corrected even it small miss-tracking occurs. Then the Track Shift Tool (Ref. No. J-14) is used in the adjustment of Tape Path System. The Track Shift Tool can forcibly release the ATF system and can easly adjust the Tape Path System by setting the tracking amout (track shift) manually.

### 7-4-1. CONNECTION OF THE TRACK SHIFT TOOL

Use the connection cords (Ref. No. J-15 and J-16) for connection. Connect the Track Shift Tool and the unit as shown in figure 1.

. RF/SWP connector ...

to CN004 on the FR-43 Board

. CTL connector ...

to CN906 on the SE-10P Board

(Please refer to operation manual of the Track Shift Tool for details.)

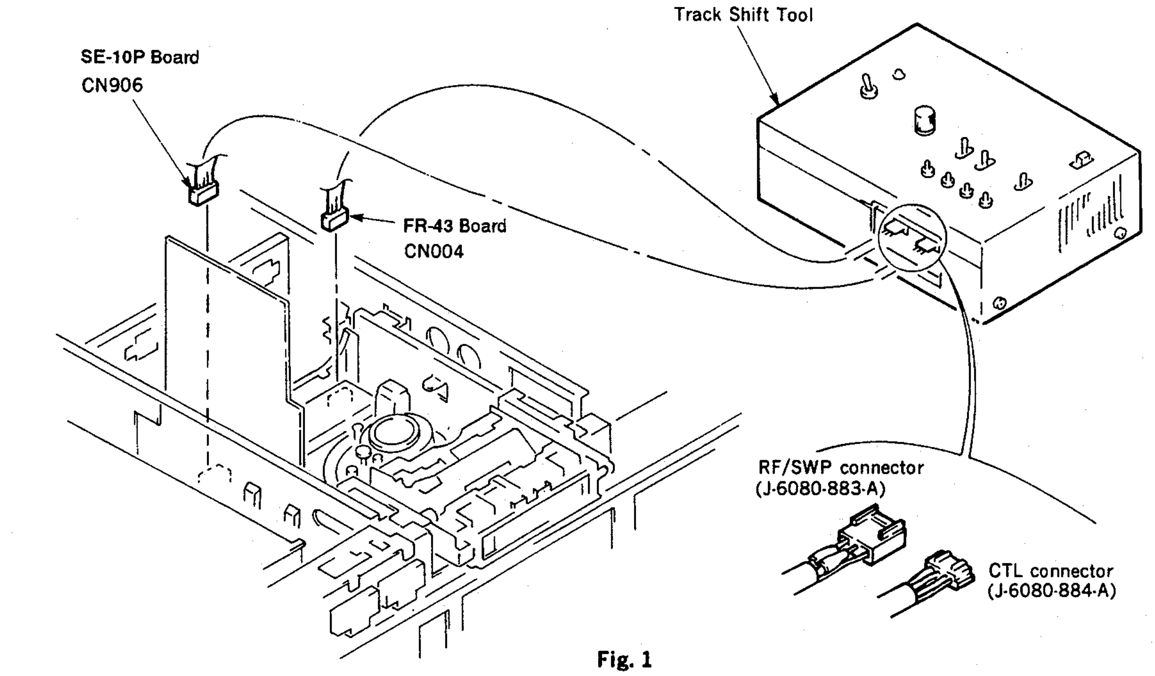
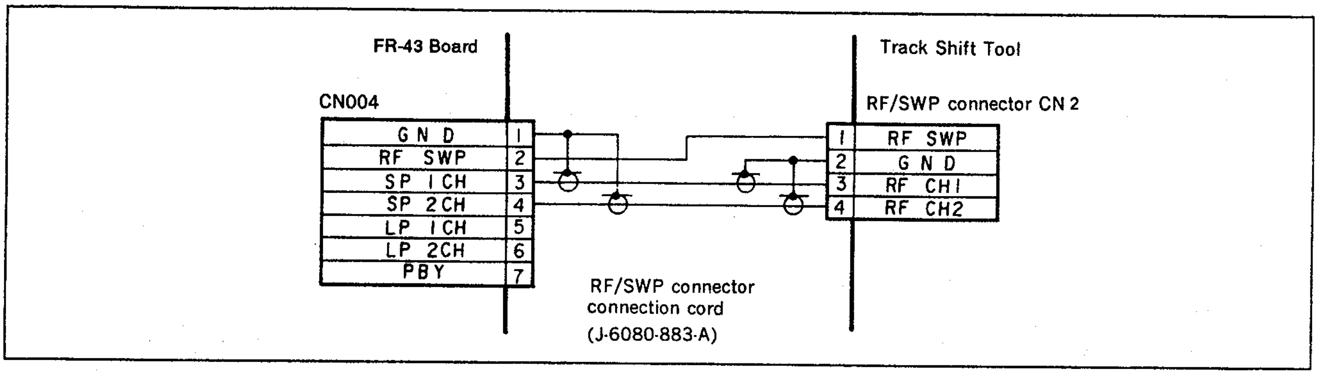


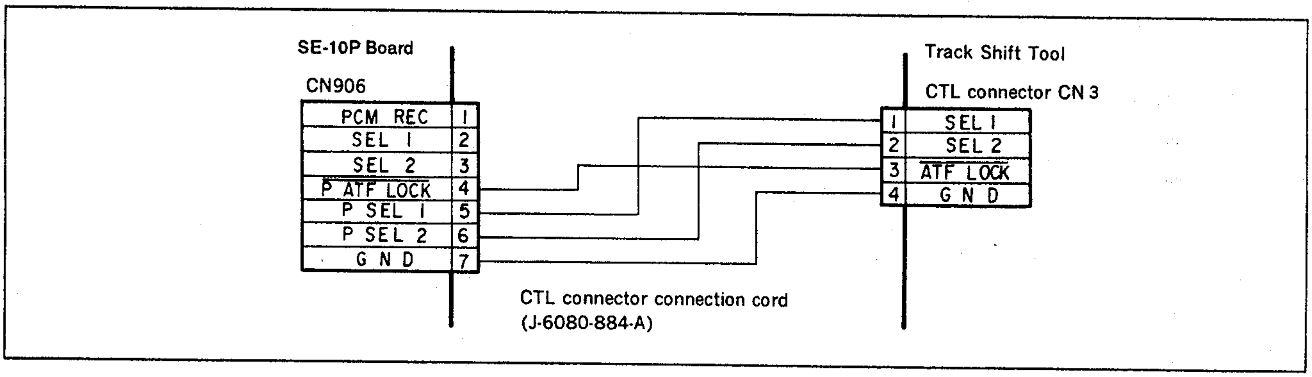
Fig. 1

[Designated Connecting Cord]

. RF/SWP connector connection cord
(Part No. J-6080-883-A)


FR-43 Board
CN004
G N D 1
RF SWP 2
SP 1 CH 3
SP 2 CH 4
LP 1 CH 5
LP 2 CH 6
PBY 7
Track Shift Tool
RF/SWP connector CN 2
1 RF SWP
2 G N D
3 RF CH1
4 RF CH2
RF/SWP connector connection cord
(J-6080-883-A)

. CTL connector connection cord
(Part No. J-6080-884-A)


SE-10P Board
CN906
PCM REC 1
SEL 1 2
SEL 2 3
P ATF LOCK 4
P SEL 1 5
P SEL 2 6
G N D 7
Track Shift Tool
CTL connector CN 3
1 SEL 1
2 SEL 2
3 ATF LOCK
4 G N D
CTL connector connection cord
(J-6080-884-A)

[Setting of the Switches]

SEL switch

When performing the track shift, set the switch to ON. When setting to OFF, the unit side controls.

PATTERN swich

Set to EV side.

ATF ADJ

Set to OFF side.

When adjusting EVO-9700P, the other switches are not used.

### 7-4-2. PREPARATION FOR ADJUSTMENT

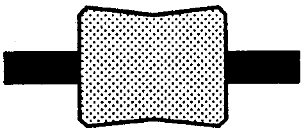
**Tools:** Track Shift Tool (Ref. No. J-14)
RF/SWP connector (Ref. No. J-15)
CTL connector (Ref. No. J-16)
Oscilloscope
Alignment tape for tracking
(WR5-1NP) (Ref. No. J-5)

(1) Clean the tape path surface (the individual tape guides, drum, capstan shaft and pinch roller).

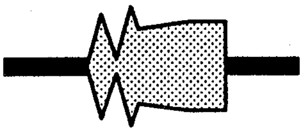
(2) Connection of the oscilloscope
1CH: CH2 checking pin of the Track Shift Tool
EXT TRIG: RF SWP checking pin of the Track Shift Tool

(3) Set the SEL switch of the Track Shift Tool to OFF and play back the alignment tape for tracking (WR5-1NP). Check that the RF waveforms of both entrance and exit sides are flat. (fig. 1 ⓐ) If the RF waveforms of both sides are not flat, adjust them as follows.

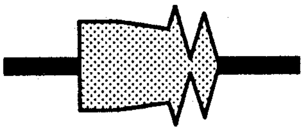
- In case of the RF waveform at the entrance side is not flat. (fig. 1 ⓑ)
  ... Perform entrance Side Adjustment referring to Section 7-4-4.
- In case of the RF wavefrom at the exit side is not flat. (fig. 1 ⓒ)
  ... Perform Exit Side Adjustment referring to Section 7-4-5.



ⓐNormal



ⓑEntrance side is defective.



ⓒExit Side is defective.

Fig. 1

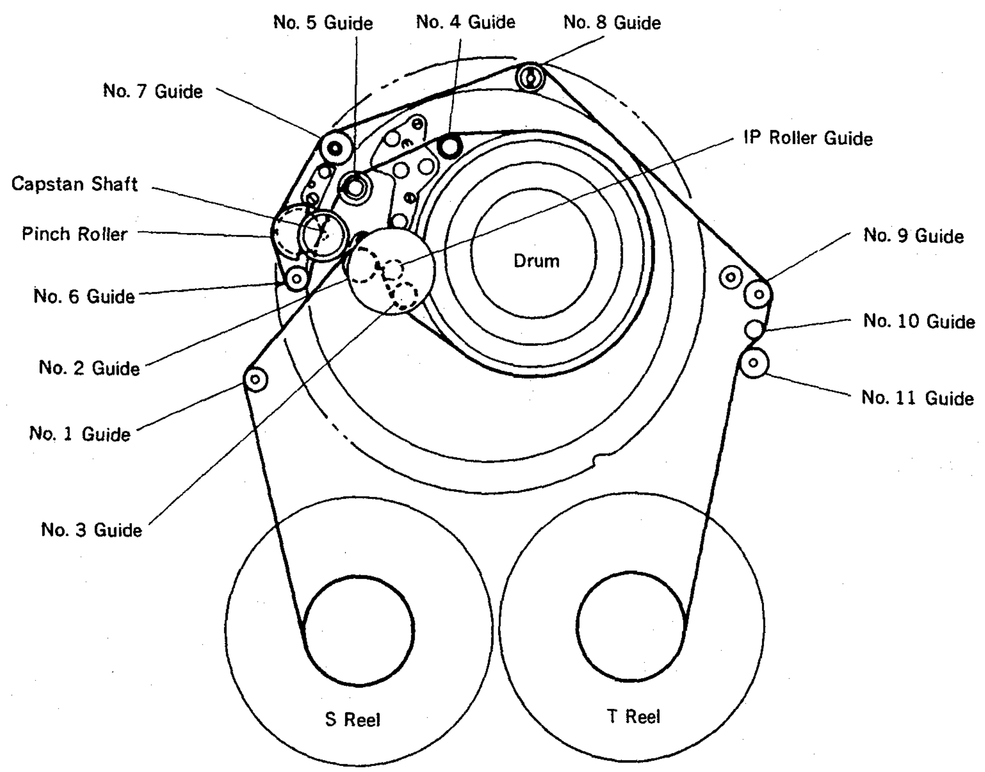
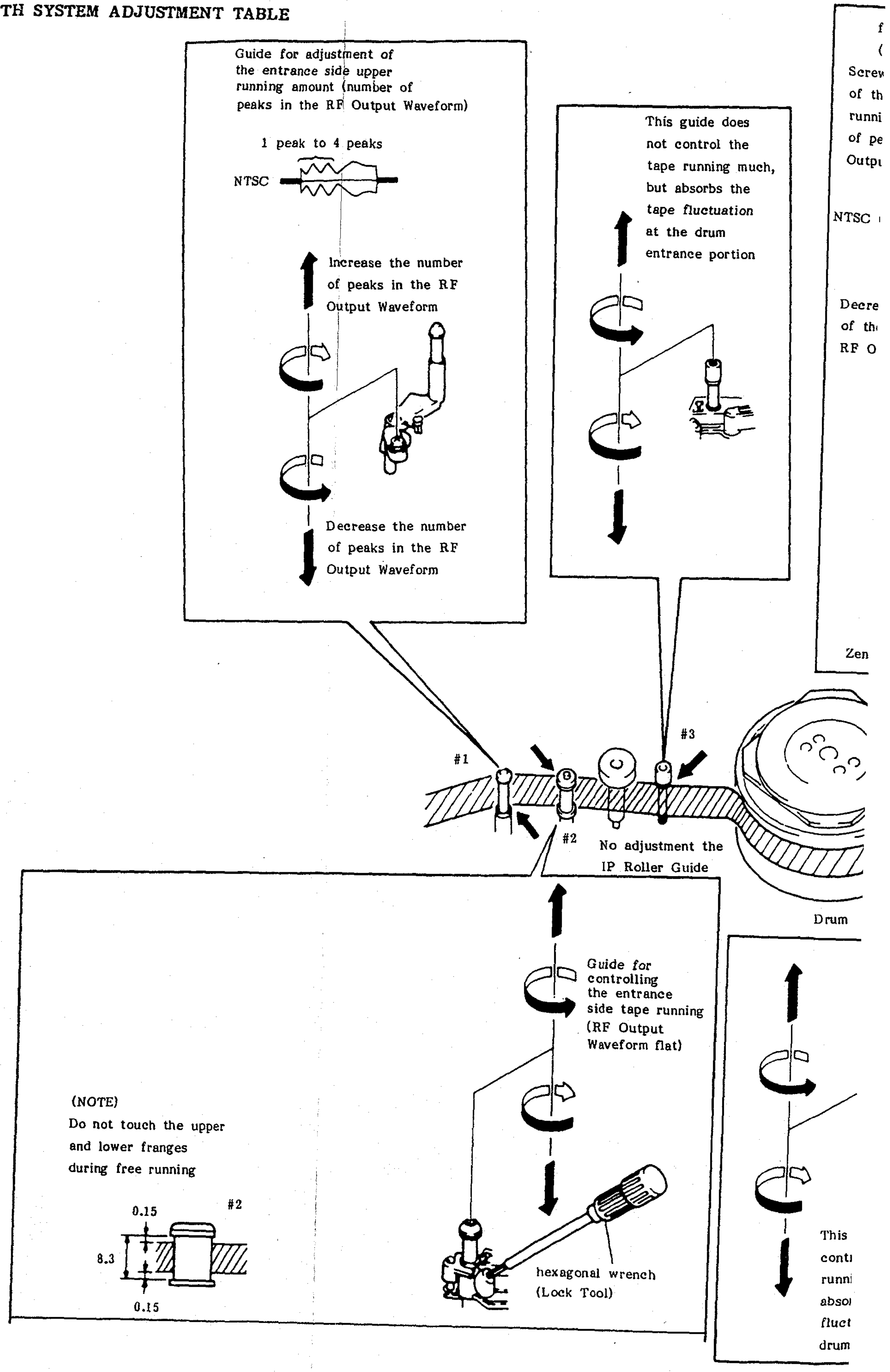

No. 5 Guide
No. 4 Guide
No. 8 Guide
No. 7 Guide
IP Roller Guide
Capstan Shaft
Pinch Roller
Drum
No. 9 Guide
No. 6 Guide
No. 10 Guide
No. 2 Guide
No. 11 Guide
No. 1 Guide
No. 3 Guide
S Reel
T Reel

Fig. 2 Tape Guide Arrangement Diagram

### 7-4-3. TAPE PATH SYSTEM ADJUSTMENT TABLE


Guide for adjustment of the entrance side upper running amount (number of peaks in the RF Output Waveform)

1 peak to 4 peaks
NTSC

Increase the number of peaks in the RF Output Waveform

Decrease the number of peaks in the RF Output Waveform

This guide does not control the tape running much, but absorbs the tape fluctuation at the drum entrance portion

f
(
Screw
of th
runni
of pe
Outpu
NTSC
Decre
of th
RF O
Zen
#1
#2
#3
Drum

No adjustment the IP Roller Guide

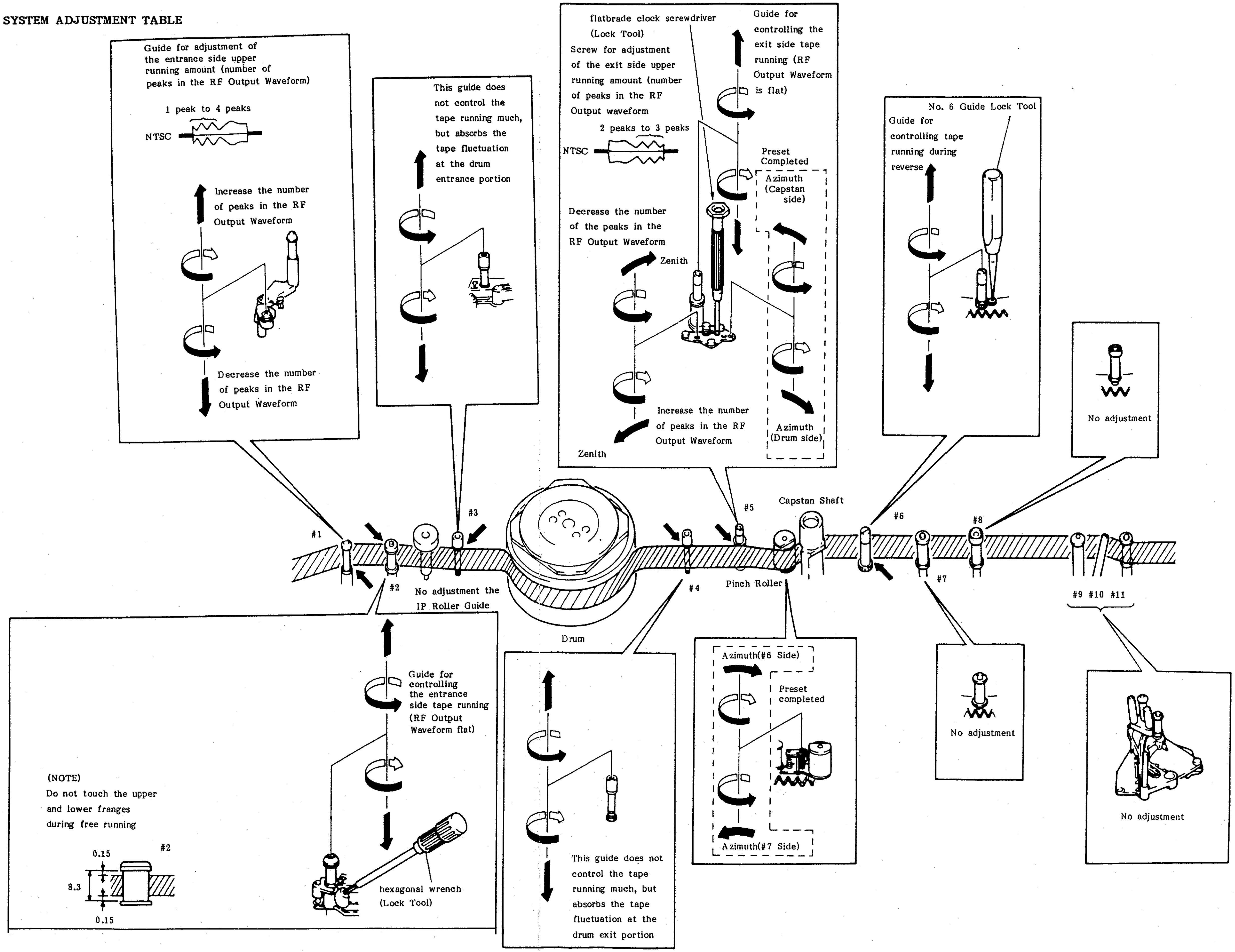
Guide for controlling the entrance side tape running (RF Output Waveform flat)

(NOTE)
Do not touch the upper and lower franges during free running

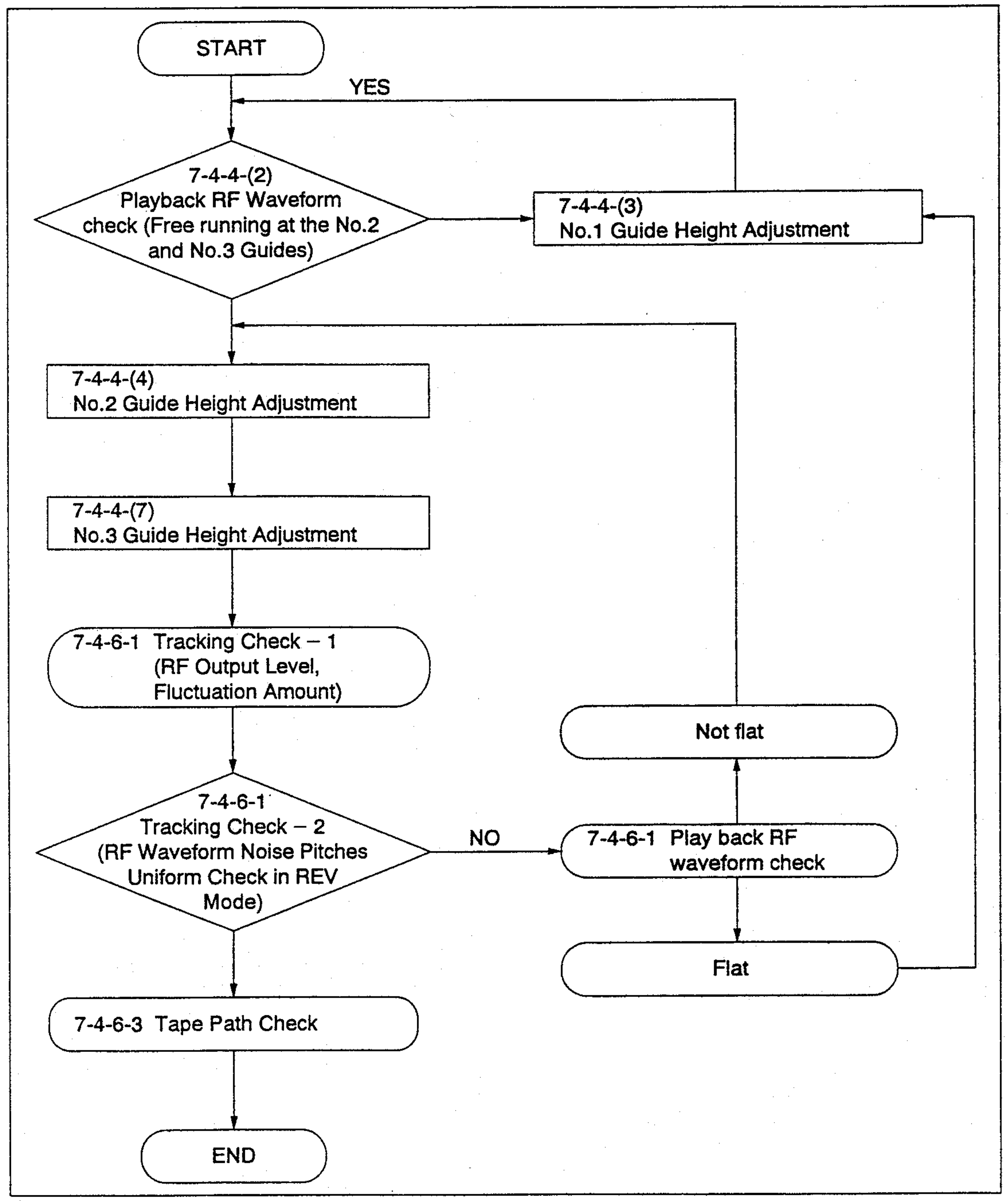
hexagonal wrench (Lock Tool)

This
conti
runni
absor
fluct
drum

## 7-4-3. TAPE PATH SYSTEM ADJUSTMENT TABLE


Guide for adjustment of the entrance side upper running amount (number of peaks in the RF Output Waveform)
1 peak to 4 peaks
NTSC
Increase the number of peaks in the RF Output Waveform
Decrease the number of peaks in the RF Output Waveform
This guide does not control the tape running much, but absorbs the tape fluctuation at the drum entrance portion
flatbrade clock screwdriver (Lock Tool)
Screw for adjustment of the exit side upper running amount (number of peaks in the RF Output waveform
2 peaks to 3 peaks
NTSC
Decrease the number of the peaks in the RF Output Waveform
Zenith
Increase the number of peaks in the RF Output Waveform
Zenith
Guide for controlling the exit side tape running (RF Output Waveform is flat)
Preset Completed
Azimuth (Capstan side)
Azimuth (Drum side)
No. 6 Guide Lock Tool
Guide for controlling tape running during reverse
No adjustment
#1
#2
No adjustment the IP Roller Guide
#3
Drum
#4
#5
Capstan Shaft
Pinch Roller
#6
#7
#8
#9 #10 #11
Guide for controlling the entrance side tape running (RF Output Waveform flat)
(NOTE)
Do not touch the upper and lower franges during free running
#2
0.15
8.3
0.15
hexagonal wrench (Lock Tool)
This guide does not control the tape running much, but absorbs the tape fluctuation at the drum exit portion
Azimuth(#6 Side)
Preset completed
Azimuth(#7 Side)
No adjustment
No adjustment

## 7-4-4. Tape Entrance Side Adjustment
### Flow Chart of Adjustment


START
YES
7-4-4-(2)
Playback RF Waveform check (Free running at the No.2 and No.3 Guides)
7-4-4-(3)
No.1 Guide Height Adjustment
7-4-4-(4)
No.2 Guide Height Adjustment
7-4-4-(7)
No.3 Guide Height Adjustment
7-4-6-1 Tracking Check – 1 (RF Output Level, Fluctuation Amount)
Not flat
7-4-6-1 Tracking Check – 2 (RF Waveform Noise Pitches Uniform Check in REV Mode)
NO
7-4-6-1 Play back RF waveform check
Flat
7-4-6-3 Tape Path Check
END

**Mode:** Play back the alignment tape

**Tools:** Alignment tape for tracking (WR5-1NP) (Ref. No. J-5)
Oscilloscope
Track Shift Tool (Ref. No. J-14)
RF/SWP connector (Ref. No. J-15)
CTL connector (Ref. No. J-16)
Hexagonal screwdriver (across flat has 0.89 mm) (Ref. No J-17)
Small adjustment mirror (Ref. No. J-4)

**Preparation:**

(i) Remove the Top Plate referring to Section 2-1.

(ii) Open the MB-19P Board referring to Section 2-10.

(iii) Connect the Track Shift Tool and oscilloscope to the unit referring to Sections 7-4-1 and 7-4-2.

(iv) Play back the alignment tape.

**Procedure:**

(1) Remove the Fly Wheel referring to Section 7-2-1.

(2) Loosen the No. 2 Guide Lock Screw and turn the No. 2 and No. 3 Guides counterclockwise to free the tape path at the entrance side. (fig. 1 and 2)

**Note:** The space between upper and lower flanges of the No. 2 Guide is narrow. Therefore, then check that the tape is not touch the upper and lower flanges. If loosen the No. 2 Guide too much, the tape touches the lower flange and the RF waveform at the entrance side exceeds the original free waveform.

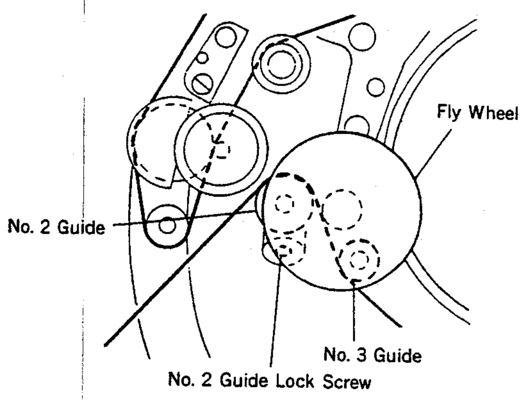

Fly Wheel
No. 2 Guide
No. 3 Guide
No. 2 Guide Lock Screw

Fig. 1

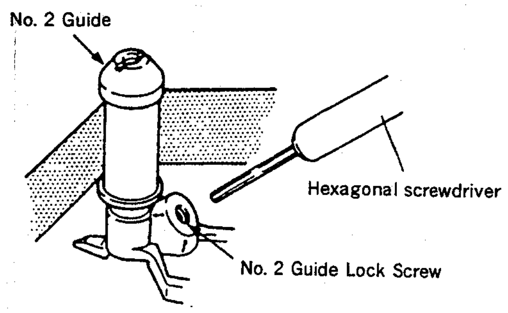

No. 2 Guide
Hexagonal screwdriver
No. 2 Guide Lock Screw

Fig. 2

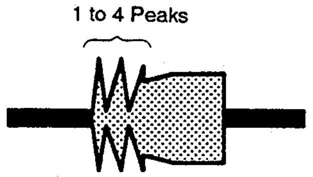


Fig. 3

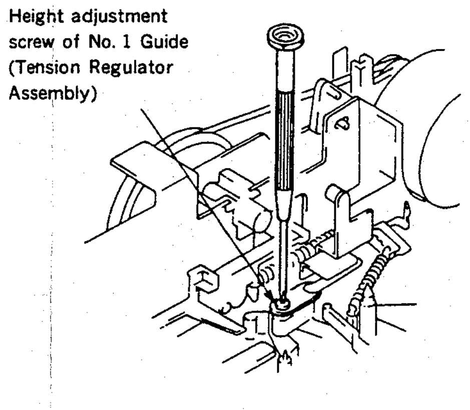

Height adjustment screw of No. 1 Guide (Tension Regulator Assembly)

Fig. 4

(3)

(4)

(5)

(6)

(7)

(8)

(9)

(10)

**Note:**

**Mode:** Play back the alignment tape

**Tools:** Alignment tape for tracking
(WR5-1NP) (Ref. No. J-5)
Oscilloscope
Track Shift Tool (Ref. No. J-14)
RF/SWP connector (Ref. No. J-15)
CTL connector (Ref. No. J-16)
Hexagonal screwdriver (across flat has 0.89 mm) (Ref. No J-17)
Small adjustment mirror (Ref. No. J-4)

**Preparation:**

(i) Remove the Top Plate referring to Section 2-1.

(ii) Open the MB-19P Board referring to Section 2-10.

(iii) Connect the Track Shift Tool and oscilloscope to the unit referring to Sections 7-4-1 and 7-4-2.

(iv) Play back the alignment tape.

**Procedure:**

(1) Remove the Fly Wheel referring to Section 7-2-1.

(2) Loosen the No. 2 Guide Lock Screw and turn the No. 2 and No. 3 Guides counterclockwise to free the tape path at the entrance side. (fig. 1 and 2)

**Note:** The space between upper and lower flanges of the No. 2 Guide is narrow. Therefore, then check that the tape is not touch the upper and lower flanges. If loosen the No. 2 Guide too much, the tape touches the lower flange and the RF waveform at the entrance side exceeds the original free waveform.

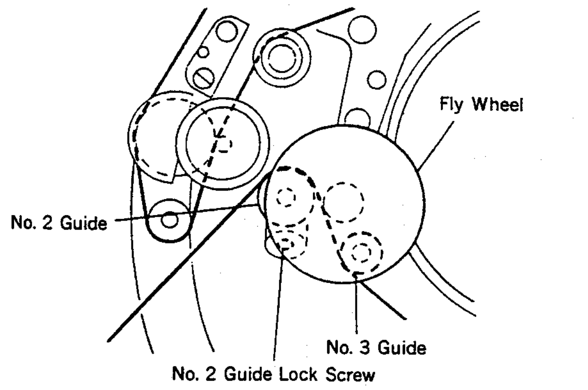

Fly Wheel
No. 2 Guide
No. 3 Guide
No. 2 Guide Lock Screw

Fig. 1

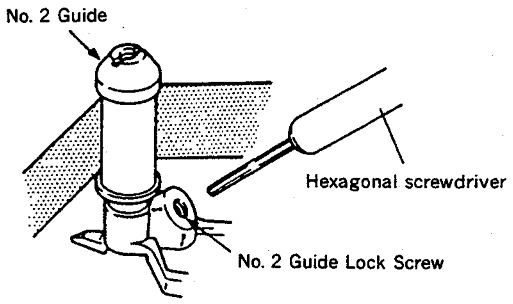

No. 2 Guide
Hexagonal screwdriver
No. 2 Guide Lock Screw

Fig. 2

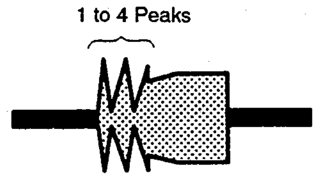


Fig. 3

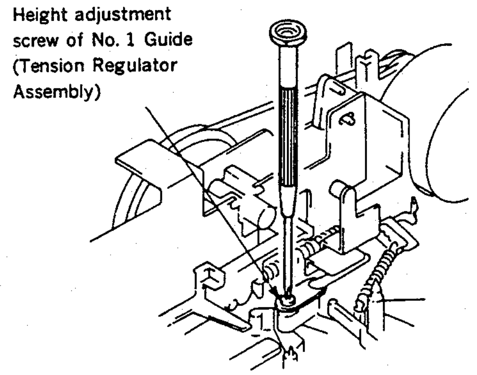

Height adjustment screw of No. 1 Guide (Tension Regulator Assembly)

Fig. 4

(3) Check that the RF waveform at the entrance side has 1 to 4 peaks in this condition. If not, adjust as follows. (fig. 3)

- less than 1 peak
  Turn and adjust the height adjustment screw of the No. 1 Guide (Tension Regulator Arm Assembly) clockwise 90 degrees step. (fig. 4)
- more than 4 peaks
  Turn and adjust the height adjustment screw counterclockwise 90 degrees step. (fig. 4)

(4) Turn slowly the No. 2 Guide clockwise so that flatten the waveform at the entrance side. (fig. 5)

**Note:** At this time, do not turn the No. 2 Guide too much.

(5) Set the SEL switch of the Track Shift Tool to ON. Turn the Track Shift Knob and set the amplitude of the RF waveform to two-third position. (fig. 6)

(6) Turn the No. 2 Guide and raise the entrance side waveform sightly. (fig. 7)

(7) Flatten the waveform with the No. 3 Guide. (fig. 8)

(8) Tighten the lock screw of the No. 2 Guide. (fig. 2)

(9) Smear locking compound to the No. 1 Guide Height Adjustment Screw and top porsion of the No. 3 Guide.

(10) Install the Fly Wheel referring to Section 7-2-1.

**Note: After adjustment, perform Check After Adjustment referring to Section 7-4-6.**

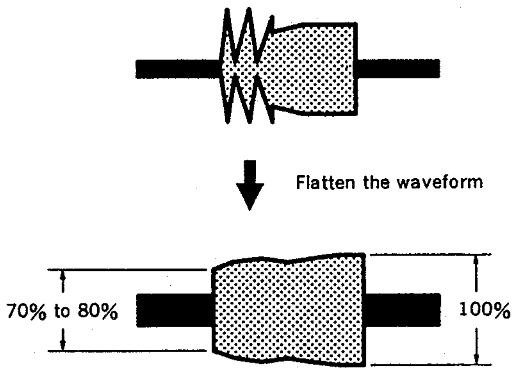

Flatten the waveform
70% to 80%
100%

Fig. 5

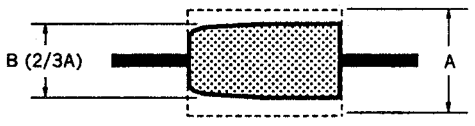
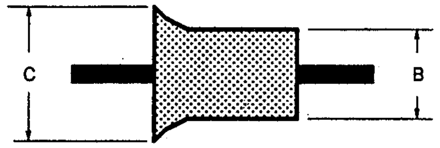


Fig. 6



C=1.15B to 1.25B

Fig. 7

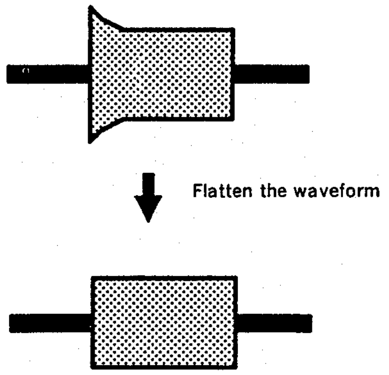
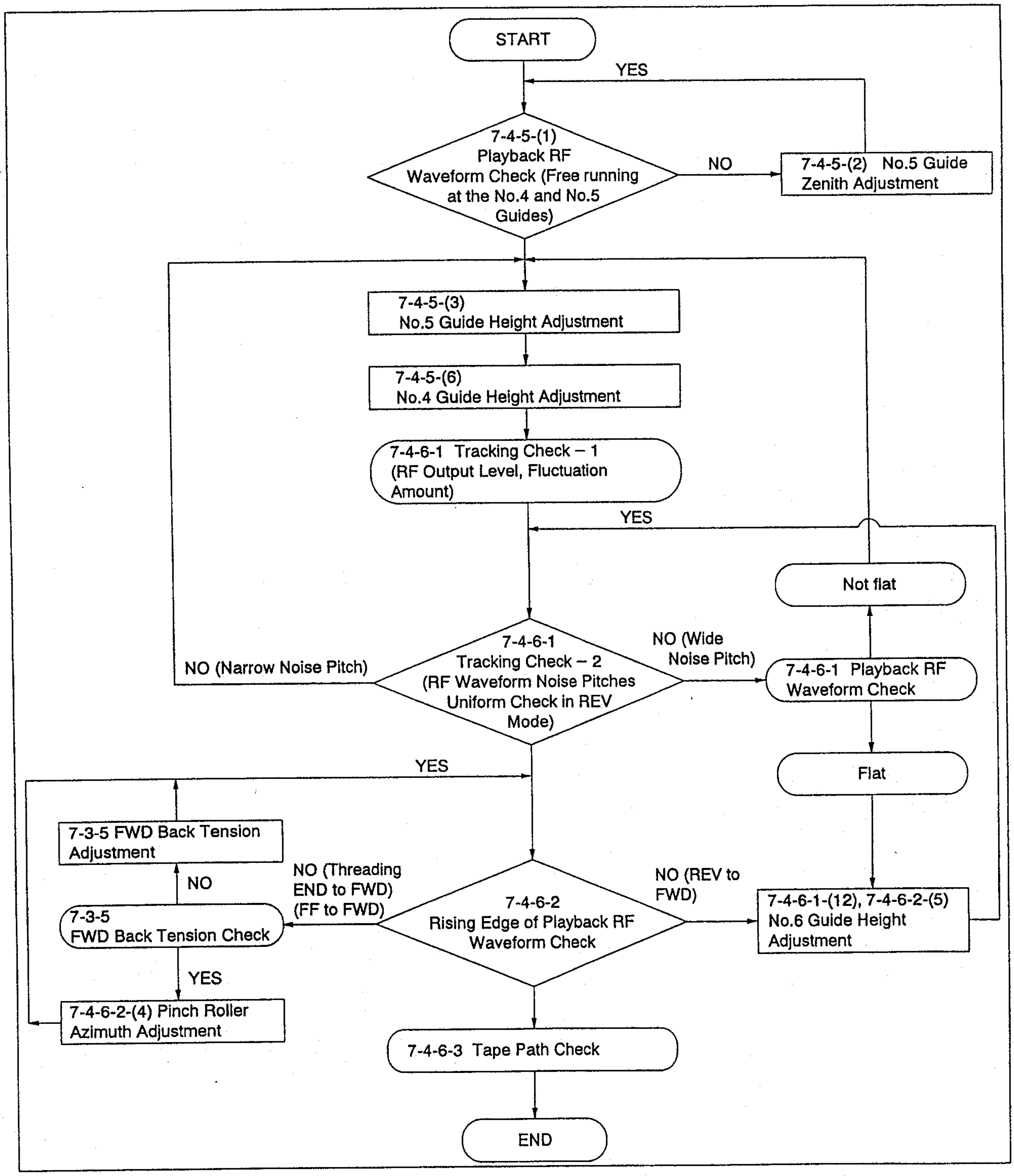

Flatten the waveform

Fig. 8

### 7-4-5. Tape Exit Side Adjustment
Flow Chart of Adjustment


START
YES
7-4-5-(1) Playback RF Waveform Check (Free running at the No.4 and No.5 Guides)
NO
7-4-5-(2) No.5 Guide Zenith Adjustment
7-4-5-(3) No.5 Guide Height Adjustment
7-4-5-(6) No.4 Guide Height Adjustment
7-4-6-1 Tracking Check – 1 (RF Output Level, Fluctuation Amount)
YES
Not flat
NO (Narrow Noise Pitch)
7-4-6-1 Tracking Check – 2 (RF Waveform Noise Pitches Uniform Check in REV Mode)
NO (Wide Noise Pitch)
7-4-6-1 Playback RF Waveform Check
Flat
YES
7-3-5 FWD Back Tension Adjustment
NO
NO (Threading END to FWD) (FF to FWD)
7-3-5 FWD Back Tension Check
7-4-6-2 Rising Edge of Playback RF Waveform Check
NO (REV to FWD)
7-4-6-1-(12), 7-4-6-2-(5) No.6 Guide Height Adjustment
YES
7-4-6-2-(4) Pinch Roller Azimuth Adjustment
7-4-6-3 Tape Path Check
END

**Mode:** Play back the alignment tape

**Tools:** Alignment tape for tracking (WR5-1NP) (Ref. No. J-5)
Oscilloscope
Track Shift Tool (Ref. No. J-14)
RF/SWP connector (Ref. No. J-15)
CTL connector (Ref. No. J-16)
Hexagonal screwdreiver (across flat has 0.89 mm) (Ref. No. J-17)
Small adjustment mirror (Ref. No. J-4)

**Preparation:**

(i) Remove the Top Plate referring to Section 2-1.

(ii) Open the MB-19P Board referring to Section 2-10.

(iii) Connect the Track Shift Tool and oscilloscope to the unit referring to Sections 7-4-1 and 7-4-2.

(iv) Play back the alignment tape.

**Procedure:**

(1) Turn the No. 4 and No. 5 Guides counterclockwise to free the tape path at the exit side. (fig. 1)

**Note:** If the No. 5 Guide nut is not loosen because of locking compound, dissolve locking compound with alcohol. Check that the tape does not touch the lower flange of the No. 5 Guide in free running.

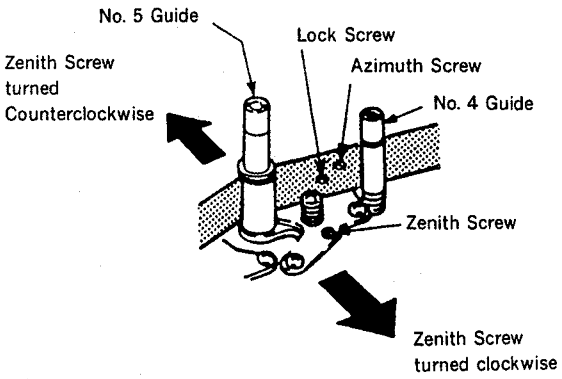

No. 5 Guide
Lock Screw
Azimuth Screw
Zenith Screw turned Counterclockwise
No. 4 Guide
Zenith Screw
Zenith Screw turned clockwise

Fig. 1

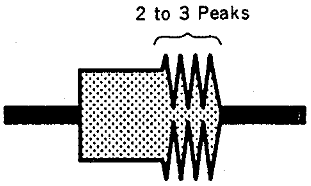


Fig. 2

(2) Check that the RF waveform at the exit side has 2 to 3 peaks in this condition. If not, adjust as follows. (fig. 2)

- Turn and loosen the lock screw counterclockwise.
- less than 2 peaks

  Turn and adjust slowly the zenith screw clockwise 45 degrees step.
- more than 3 peaks

  Turn and adjust slowly the zenith screw of the No. 5 Guide counterclockwise 45 degrees step.

After adjustment, tighten the lock screw clockwise.(fig. 1)

**Note:** If tighten the lock screw too strongly, the waveform will change. Tighten suitably the lock screw. Never turn the azimuth screw of the No. 5 Guide.

(3) Turn the No. 5 Guide clockwise and flatten the RF waveform at the exit side. (fig. 3)

**Note:** At this time, the waveform reaction is slow against the nut rotation. After checking that the waveform variation is stabilized, turn the nut more.

(4) Set the SEL switch of the Track Shift Tool to ON. Turn the Track Shift Knob and set the amplitude of the RF waveform to two-third position. (fig. 4)

(5) Turn the No. 5 Guide and raise the exit side waveform sightly. (fig. 5)

(6) Turn the No. 4 Guide and flatten the waveform. (fig. 6)

(7) Smear locking compound to the lock screw, zenith screw and top portions of the No. 4 Guide and No. 5 Guide.

**Note: After adjustment, perform Check After Adjustment referring to Section 7-4-6.**

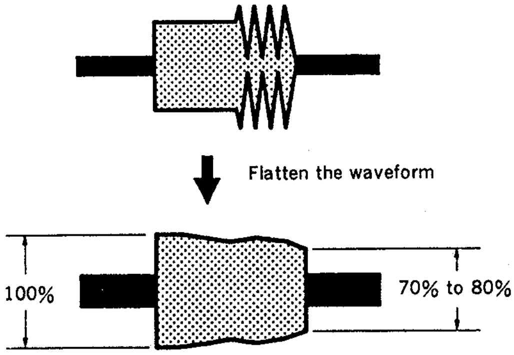


Fig. 3

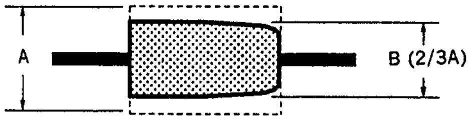
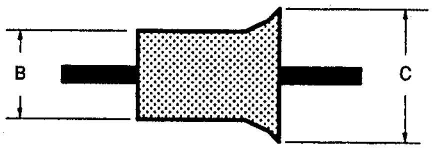


Fig. 4



C=1.15B to 1.25B

Fig. 5

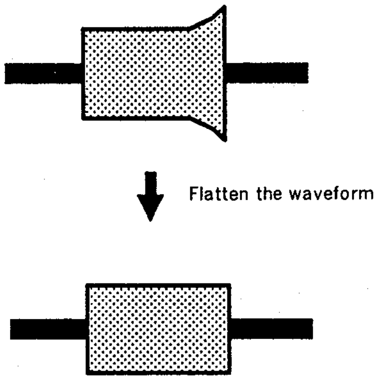


Fig. 6

## 7-4-6. CHECK AFTER ADJUSTMENT

**Tool:** No. 6 Guide Lock Screwdriver (Ref. No. J-10)
Alignment tape for tracking (WR5-1NP) (Ref. No. J-5)

### 1. Video Tracking Check

(1) Play back the alignment tape for tracking.

(2) Set the SEL switch of the Track Shift Tool to ON. Turn the Track Shift Knob and set the amplitude of the RF waveform to two-third position. (fig. 1)

(3) In this time, check that the amplitude minimum value (E MIN) of the RF waveform is more than 75% of maximum value (E MAX). (fig. 2)

(4) In this time, check that the fluctuation amount of th RF waveform at entrance and exit sides meet the reguired specification as shown in figure. 3.

(5) Set the SEL switch of the Track Shift Tool to OFF.

(6) Set to the REV mode and check that the noise pitches of the waveform are uniform. (fig. 4) If not, adjust as follows.

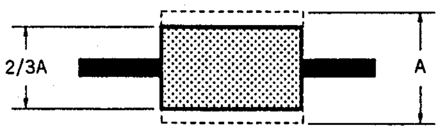
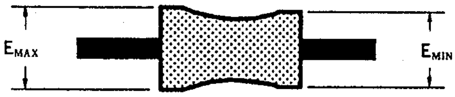


Fig. 1



$\frac{E_{MIN}}{E_{MAX}} \geqq 75\%$

Fig. 2

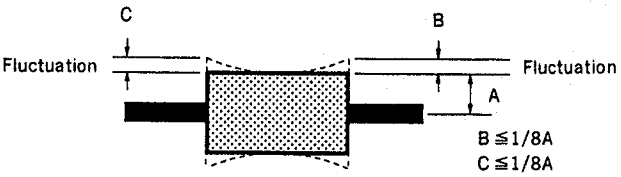


Fig. 3

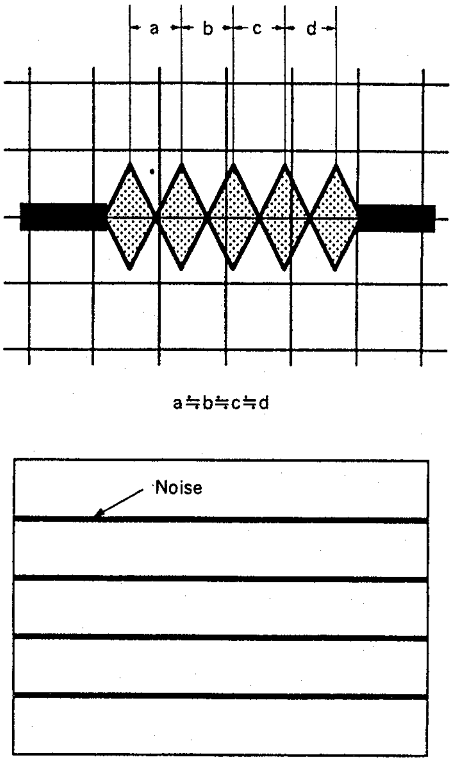


Fig. 4

When the Noise pitch is narrow at the entrance side (upper of screen). (fig. 5)

(7) Check that the RF waveform is flat in the PLAY mode.

(8) Perform the height adjustment of the No. 1 Guide referring to Section 7-4-4.

**Note: After adjustment, perform the Tracking Check referring to Section 7-4-6-1.**

When the RF waveform is not flat.

(9) Perform the height adjustment of the No. 2 and No. 3 Guides referring to Section 7-4-4.

**Note: After adjustment, perform the Tracking Check referring to Section 7-4-6-1.**

When the noise pitch is narrow at the exit side (lower of screen). (fig. 6)

(10) Set to PLAY mode and perform the height adjustment of the No. 4 and No. 5 Guides referring to Section 7-4-5. After adjustment, perform the Tracking Check referring to Section 7-4-6-1 and check that it meet the required specification.

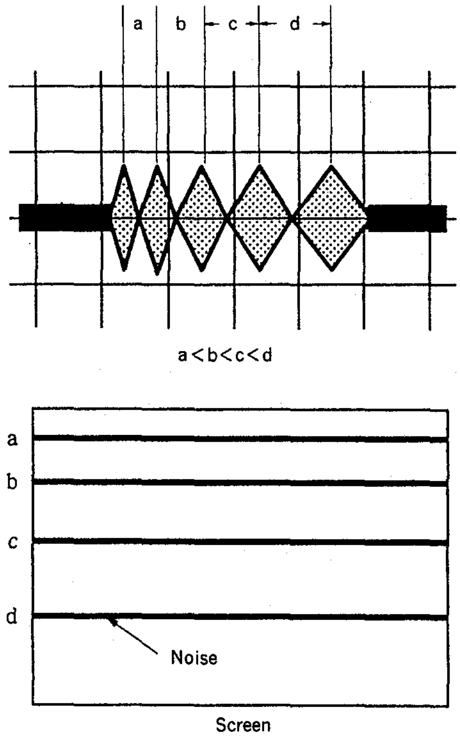


Fig. 5

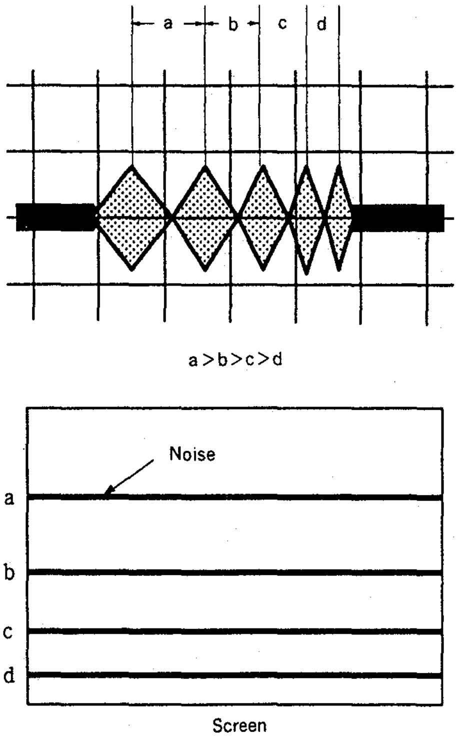


Fig. 6

When the noise pitch is wide at the exit side (lower of screen). (fig. 7)

(11) Set to PLAY mode and check that the RF waveform is flat.

(12) Turn and loosen the Guide Lower Gear counterclockwise with the No. 6 guide lock tool. (fig. 8)

(13) Turn the No. 6 Guide and perform the height adjustment.

**Note:** At this time, if the No. 6 Guide is raised too much, the wrinkles may occur between the Capstan Shaft and No. 5 Guide (A' portion). Check that the wrinkes are not occur. (fig. 9)

(14) Turn and *lock the Guide Lower Gear clockwise with the N0. 6 guide lock tool.

*Touch the Guide Lower Gear against the lower flange of the No. 6 Guide and turn it more about 10 degrees.

**Note: After adjustment, perform the Tracking Check referring to Section 7-4-6-1.**

When the waveform is not flat.

(15) Perform the height adjustment of the No. 4 and No. 5 Guides referring to Section 7-4-5.

**Note: After adjustment, perform the Tracking Check referring to Section 7-4-6-1.**

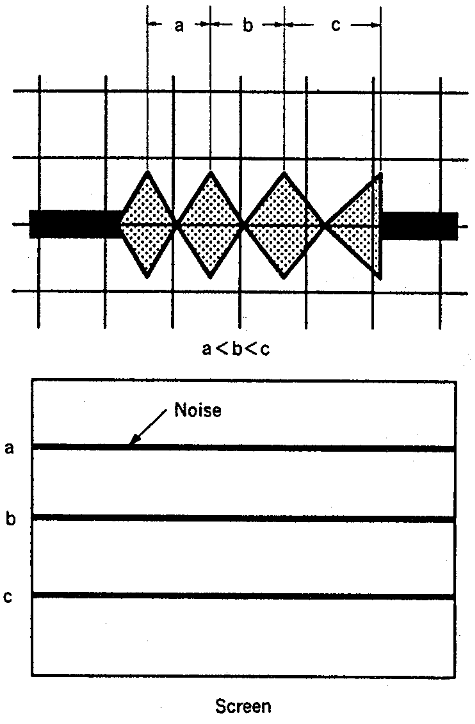


Fig. 7

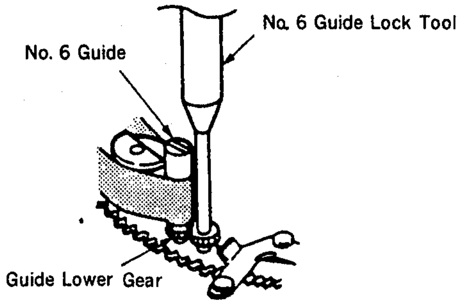


Fig. 8

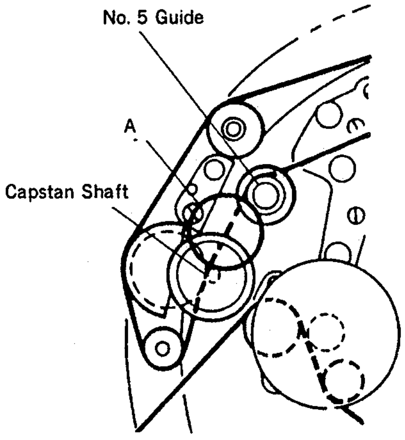


Fig. 9

**2. Rising Edge of Waveform Check**

(1) Check that the RF waveform rises horizontally (flat waveform) in playback after threading is completed, playback after CUE/REV or FF mode.
If the RF waveform do not rise horizontally (flat waveform), adjust as follows.

In case of the noise occurs at the exit side (lower of screen) at the rising edge of the playback, after threading is completed. (fig. 11)

(2) Check that the FWD Back Tension.

When the FWD Back Tension is too low.

(3) Adjust again referring to FWD Back Tension Adjustment of Section 7-3-5.

When the FWD Back Tension is normal.

(4) While adjusting the waveform at the rising edge of the playback, turn the azimuth screw of the Pinch Roller clockwise about 5 degrees step. Then check the rising edge of waveform.

In case of the noise occurs at the exit side (lower of screen) at the rising edge of the playback after REV mode. (fig. 11)

(5) Turn and loosen the Guide Lower Gear counterclockwise with No. 6 guide lock tool. (fig. 8)

(6) Turn the No. 6 Guide and perform the height adjustment.

**Note:** At this time, if the No. 6 Guide is raised too much, the wrinkles may occur between the Capstan Shaft and No. 5 Guide(A portion). Check that the wrinkes are not occur. (fig. 9)

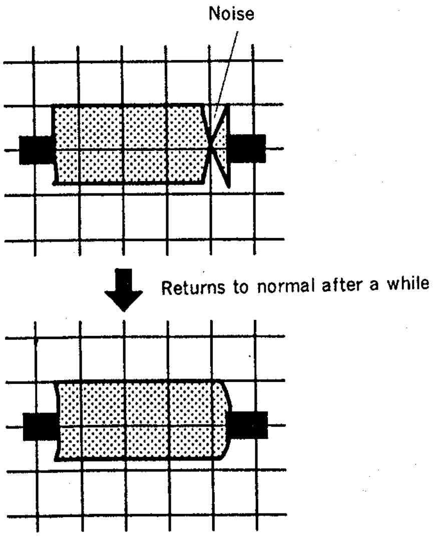


Fig. 11

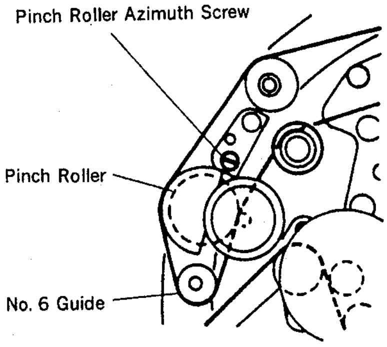


Fig. 12

In case of the noise occurs at the exit side (lower of screen) at the start of the playback after FF mode. (fig. 11)

(7) Check that the FWD Back Tension.

When the FWD Back Tension is too low.

(8) Adjust again referring to FWD Back Tension Adjustment of Section 7-3-5.

When the FWD Back Tension is normal.

(9) While adjusting the waveform at the rising edge of the playback, turn the azimuth screw of the Pinch Roller clockwise about 5 degrees step. Then check the rising edge of waveform. (fig. 12)

**Note: After adjustment, be sure to check that waveform again at the rising edge of the playback after threading is completed.**

### 3. Tape Running Check

Check the tape running at the flange of the Guides (shown by arrows) in PLAY and REV modes.

| | | |
|---|---|---|
| No. 1 Guide<br>No. 2 Guide<br>No. 5 Guide | ... | Tape runs in contact with upper or lower flange. If tape curl exist, less than 0.3mm at the tape curl is acceptable. |
| No. 3 Guide<br>No. 6 Guide | ... | Tape runs in contact with upper or lower flange without curl. |
| No. 4 Guide | ... | Tape runs in contact with upper flange. If tape curl exists, less than 0.5mm of tape curl is acceptable. |

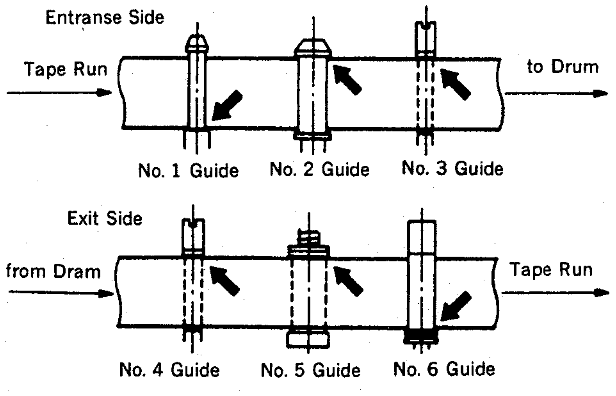

Entranse Side
Tape Run
to Drum
No. 1 Guide
No. 2 Guide
No. 3 Guide
Exit Side
from Dram
Tape Run
No. 4 Guide
No. 5 Guide
No. 6 Guide

Fig. 13

# SECTION 8
# ELECTRICAL ADJUSTMENT

## 8-1. POWER SUPPLY ADJUSTMENT

### 8-1-1. Equipment Required

- Digital voltmeter

### 8-1-2. UNSW 5V Adjustment

| Machine condition for adjustment | Specifications | Adjustments |
|---|---|---|
| • STANDBY mode | CN012-2/IG-14<br>5.4 ± 0.1Vdc | ⊘VR203/<br>POWER BLOCK |

### 8-1-3. REG +5V Adjustment

| Machine condition for adjustment | Specifications | Adjustments |
|---|---|---|
| • E-E mode | CN012-5/IG-14<br>5.2 ± 0.1Vdc | ⊘VR202/<br>POWER BLOCK |

### 8-1-4. REG +9V Adjustment

| Machine condition for adjustment | Specifications | Adjustments |
|---|---|---|
| • E-E mode | CN012-10/IG-14<br>9.0 ± 0.1Vdc | ⊘VR201/<br>POWER BLOCK |

## 8-2. SERVO SYSTEM ADJUSTMENT

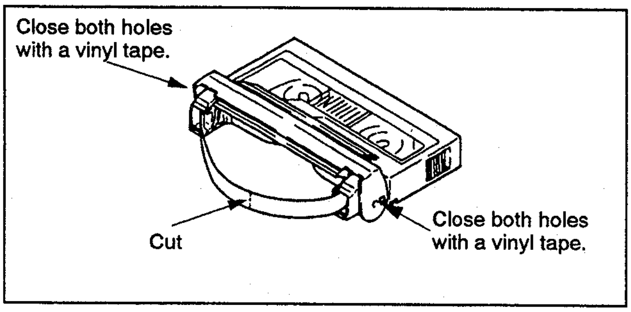
### 8-2-1. Equipment Required

- Oscilloscope
- Frequency counter
- Digital voltmeter
- Alignment tape

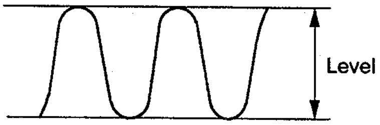
| Name (Part No.) | REC mode | Tape Type | Tape Speed | Contents | |
|---|---|---|---|---|---|
| | | | | Video Area | PCM Area |
| SP operation check<br>WR5-8CSE<br>(8-967-995-48) | Hi8 | ME | SP | VIDEO SIGNAL<br>Color-bar: 4 min.<br>Monoscope: 4 min.<br>AUDIO SIGNAL (AFM)<br>400 Hz, 60% modulation | AUDIO SIGNAL (PCM)<br>400 Hz: 20 min. |
| LP operation check<br>WR5-8CLE<br>(8-967-995-57) | Hi8 | ME | LP | VIDEO SIGNAL<br>Color-bar: 4 min.<br>Monoscope: 4 min.<br>AUDIO SIGNAL (AFM)<br>400 Hz, 60% modulation | AUDIO SIGNAL (PCM)<br>400 Hz: 40 min. |
| Tracking check<br>WR5-1CP<br>(8-967-995-07) | STD | MP | SP | CH2: 1MHz tape path adjustment signal switching position adjustment marker<br>(CH1: 9 MHz) | |

- Empty cassette (See below.)

1. Draw out a tape and cut it.
2. Cover two holes on both side of the cassette with a vinyl tape.

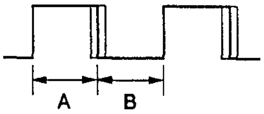

Close both holes with a vinyl tape.
Cut
Close both holes with a vinyl tape.

### 8-2-2. DS Clock Check

| Machine condition for adjustment | Specifications | Adjustments |
|---|---|---|
| • VIDEO IN: color-bar signal<br>• STOP mode | TP107/SE-10P (C-5)<br><br>Level=more than 2.5 Vp-p<br>Frequency=4433619 ± 300 Hz | |

### 8-2-3. Capstan FG Duty Adjustment

When adjusting the MD-23P board, remove CN902 (12 Pin) and CN903 (13 Pin) on the SE-10P board then remove the mechanical block (core block) from the chassis. The VTR is operated by pressing the buttons on the MB-19P board.

| Machine condition for adjustment | Specifications | Adjustments |
|---|---|---|
| • Connect each TP001 AND TP002 on the SE-10P board to ground with jumper wires.<br>• Insert the empty cassette tape and put the machine into the play back mode.<br>• After adjustment, remove the jumper wires. | TP105/SE-10P (D-4)<br> <br>A ≒ B | ⊘RV801/MD-23P (D-3) |

### 8-2-4. Reel FG Adjustment

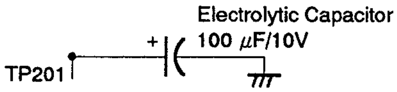
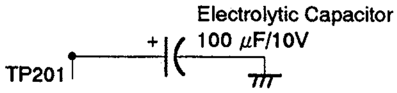
| Machine condition for adjustment | Specifications | Adjustments |
|---|---|---|
| • Play back the alignment tape WR5-8CLE. | TP901/MD-23P (G-1)<br>21 ± 1 Hz | ⊘RV901/MD-23P (G-1) |
| • Perform confirmation while playing back the alignment tape WR5-8CLE. | TP902/MD-23P (E-1)<br>1.0 through 1.4Vdc | |
| • Perform confirmation while playing back the alignment tape WR5-8CLE with CUE ( ×9) mode.<br>CUE ( ×9): After pressing the PB button, press the FF button on the MB-19P Board. | TP901/MD-23P (G-1)<br>37 through 50 Hz<br>TP902/MD-23P (E-1)<br>1.4 through 1.9Vdc | |

**Note:** After adjustment, install the mechanical block.

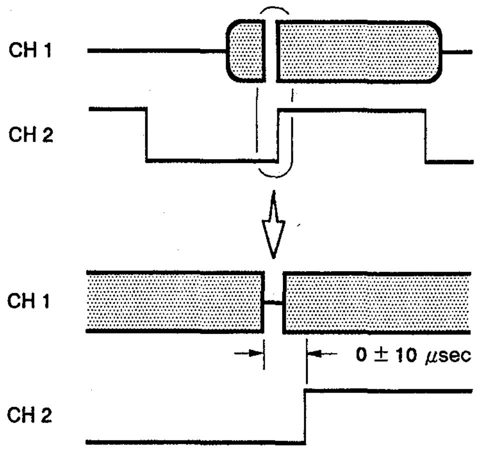
### 8-2-5. Drum Free Speed Adjustment

| Machine condition for adjustment | Specifications | Adjustments |
|---|---|---|
| • VIDEO IN: No signal<br>• Use the Hi8 MP tape.<br>• REC mode | TP101/SE-10P (D-6)<br>1.9 ± 0.1Vdc | ⊘RV102/SE-10P (E-6) |

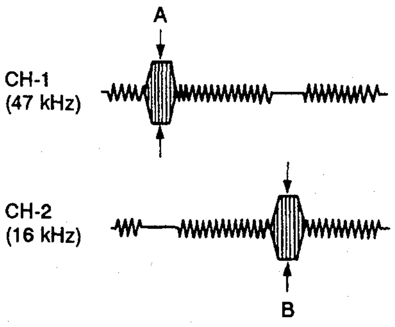
### 8-2-6. Capstan Free Speed Adjustment

| Machine condition for adjustment | Specifications | Adjustments |
|---|---|---|
| **Step 1 (SP mode)**<br>- Connect TP201/SE-10P (H-3) to ground with electrolytic capacitor (100 $\mu$F/10V) during STOP mode.<br> <br>- Connect TP002/SE-10P (D-6) to ground with jumper wire during STOP mode.<br>- Play back the alignment tape WR5-8CSE.<br>- After adjustment, remove the jumper wire and capacitor. | TP105/SE-10P (D-4)<br>1341 ± 1 Hz | ⊘ RV106/SE-10P (D-5) |
| **Step 2 (LP mode)**<br>- Connect TP201/SE-10P (H-3) to ground with electrolytic capacitor (100 $\mu$F/10V) during STOP mode.<br> <br>- Connect TP002/SE-10P (D-6) to ground with jumper wire during STOP mode.<br>- Connect pin 4 of CN901/SE-10P (A-5) to ground with jumper wire during STOP mode.<br>- Play back the alignment tape WR5-8CSE.<br>- After adjustment, remove the jumper wire and capacitor. | TP105/SE-10P (D-4)<br>670 ± 1 Hz | ⊘ RV105/SE-10P (D-5) |

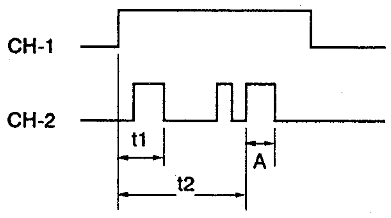
### 8-2-7. Switching Position Adjustment

| Machine condition for adjustment | Specifications | Adjustments |
|---|---|---|
| • Play back the alignment tape WR5-1CP. | CH-1: CN004-4/FR-43 (A-2)<br>CH-2: CN004-2/FR-43 (A-2)<br><br> | ⊘ RV101/SE-10P (C-6)<br>TRIG: CN004-2/FR-43 (A-2) |

### 8-2-8. ATF BPF Balance Adjustment

| Machine condition for adjustment | Specifications | Adjustments |
|---|---|---|
| • Connect TP208/SE-10P (H-3) to ground with jumper wire.<br>• VIDEO IN : color-bar signal<br>• Preform the self-recording /play back with a *Hi8 ME tape.*<br>• After adjustment, remove the jumper wire. | CH-1: IC201-7/SE-10P (G-4)<br>CH-2: IC201-6/SE-10P (G-4)<br><br> <br>B=A | ⊘ RV201/SE-10P (G-4)<br>TRIG: TP103/SE-10P (F-3) |

### 8-2-9. STILL Adjustment

| Machine condition for adjustment | Specifications | Adjustments |
|---|---|---|
| • VIDEO IN : color-bar signal<br>• Perform the self-recording/play back with a Hi8 ME tape.<br>• Put the unit into the PAUSE mode and measure the pulse width of A portion.<br>• Advance one frame and perform adjustment if the pulse width of A is narrow. If it is wide, advance the frame for one more frame and perform adjustment by observing narrower pulse width. | CH-1: TP103/SE-10P (F-3)<br>CH-2: TP204/SE-10P (F-5)<br> <br>t1=4.8 ± 0.1msec<br>t2=13.6 ± 0.1msec | t1<br>⊘ RV203/SE-10P (H-3)<br>t2<br>⊘ RV204/SE-10P (H-3)<br>TRIG: TP103/SE-10P (F-3) |

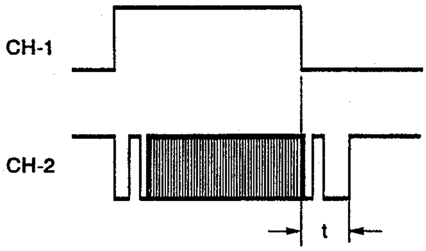
### 8-2-10. Recoder Slow Tracking Center Adjustment

| Machine condition for adjustment | Specifications | Adjustments |
|---|---|---|
| • Set the slow adjustment control (RV004/FB-170) to the center click position. | **Step 1**<br>Measure DC voltage (A) of W006-1/FB-170 (F-4). | ⊘ RV003/FB-170 (H-4) |
| | **Step 2**<br>Decrease the DC voltage (B) of W007-10/FB-170 (G-4) to the half of DC voltage (A) with RV003.<br>$B=\frac{A}{2} \pm 0.01$ (Vdc) | |

### 8-2-11. Player Slow Tracking Center Adjustment

| Machine condition for adjustment | Specifications | Adjustments |
|---|---|---|
| • Set the slow adjustment control (RV101/FB-171) to the center click position. | **Step 1**<br>Measure DC voltage (A) of CN104-5/FB-171 (F-3). | ⊘ RV102/FB-171 (C-4) |
| | **Step 2**<br>Decrease the DC voltage (B) of W102-10/FB-171 (D-4) to the half of DC voltage (A) with RV102.<br>$B=\frac{A}{2} \pm 0.01$ (Vdc) | |

### 8-2-12. SP Slow Adjustment

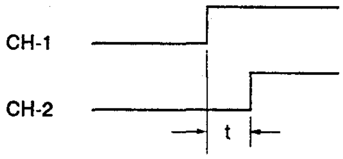
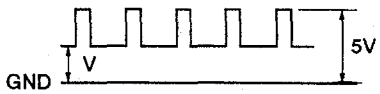
| Machine condition for adjustment | Specifications | Adjustments |
|---|---|---|
| • VIDEO IN : color-bar signal<br>• Using P5-MP series tape, perform the short recording of the color-bar signal at the end of tape.<br>• Connect TP001/SE-10P (C-2) to ground with jumper wire.<br>• Playback the recorded portion with SLOW ( ×1/5 speed) mode.<br>• When the noise appears on the monitor screen, adjust RV104 temporarily.<br>• When the noise appears on the monitor screen, adjust RV104 so that noise at the bottom of the screen disappears.<br>• After adjustment, remove the jumper wire. | CH-1: TP302/SE-10P (F-3)<br>CH-2: TP105/SE-10P (D-4)<br> <br>t=minimum | ⊘ RV304/SE-10P (E-2)<br>⊘ RV104/SE-10P (D-5)<br>TRIG: TP302/SE-10P (F-3) |

### 8-2-13. LP Slow Adjustment

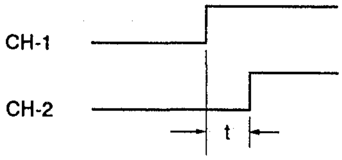
**Note:** This adjustment should be performed after completion of "8-2-12. SP Slow Adjustment".

| Machine condition for adjustment | Specifications | Adjustments |
|---|---|---|
| • Connect pin 4 of CN901/SE-10P (A-5) to ground with jumper wire.<br>• VIDEO IN : color-bar signal<br>• Perform the a short recording of the color-bar signal at the end of P5-MP series tape.<br>• Connect TP001/SE-10P (C-2) to ground with jumper wire.<br>• Playback the recorded portion with SLOW ( ×1/5 speed).<br>• After adjustment, remove jumper wires. | Adjust RV103 so that the noise at the bottom of the screen disappears. | ⊘ RV103/SE-10P (E-5) |

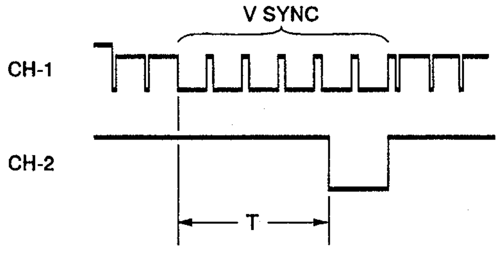
### 8-2-14. SP Slow fH Adjustment

| Machine condition for adjustment | Specifications | Adjustments |
|---|---|---|
| **Step 1**<br>• Perform the short recording of the color-bar signal with a Hi8 ME tape.<br>• Play back the recorded portion with SLOW ( ×1/30 speed).<br>SLOW ( ×1/30 speed):<br>Short-circuit pin 5 of CN901/SE-10P (A-5) to ground for one second with 6.2kΩ resistor. | CH-1: TP103/SE-10P (F-3)<br>CH-2: TP102/SE-10P (D-5)<br> <br>t=580 ± 10 μsec | ⊘ RV301/SE-10P (F-1) |
| **Step 2**<br>• Perform the short recording of the color-bar signal with a Hi8 ME tape.<br>• Play back the recorded portion with SLOW ( ×1/5 speed).<br>SLOW ( ×1/5 speed):<br>Press SLOW button or short-circuit pin 5 of CN901/SE-10P (A-5) to ground for one second with 3.6kΩ resistor. | TP301/SE-10P (E-2)<br> <br>V=1.5 ± 0.1 Vdc | ⊘ RV303/SE-10P (E-1) |

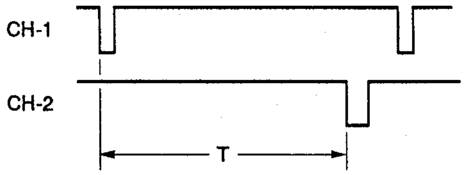
### 8-2-15. LP Slow fH Adjustment

| Machine condition for adjustment | Specifications | Adjustments |
|---|---|---|
| • Connect pin 4 of CN901/SE-10P (A-5) to GND with jumper wire. (LP mode)<br>• Perform the short recording of the color-bar signal with a Hi8 ME tape. Play back the recorded portion with SLOW ( ×1/5 speed). | CH-1: TP103/SE-10P (F-3)<br>CH-2: TP102/SE-10P (D-5)<br> <br>t=580 ± 10 μsec | ⊘ RV302/SE-10P (F-2) |

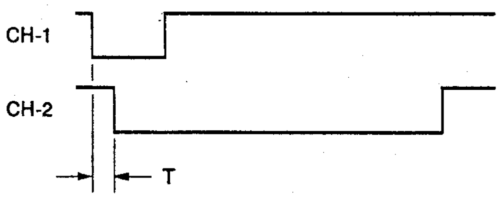
### 8-2-16. REF VD Adjustment

| Machine condition for adjustment | Specifications | Adjustments |
|---|---|---|
| • VIDEO IN: Color-bar signal | CH-1: TP002/AN-2P (F-2)<br>CH-2: TP003/AN-2P (D-5)<br><br> <br>T=136.7 ± 5 μsec | ⊘ RV001/AN-2P (D-5) |

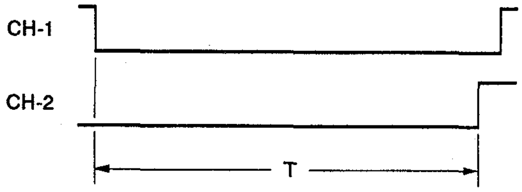
### 8-2-17. REF V A Adjustment

| Machine condition for adjustment | Specifications | Adjustments |
|---|---|---|
| • VIDEO IN: Color-bar signal | CH-1: TP005/MC-81 (B-5)<br>CH-2: TP006/MC-81 (B-5)<br><br> <br>T=18.0 ± 0.5 msec | ⊘ RV001/MC-81 (A-5) |

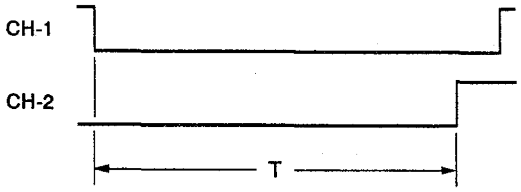
### 8-2-18. REF V B Adjustment

| Machine condition for adjustment | Specifications | Adjustments |
|---|---|---|
| • VIDEO IN: Color-bar signal | CH-1: TP005/MC-81 (B-5)<br>CH-2: TP007/MC-81 (C-5)<br><br> <br>T=108 ± 5 μsec | ⊘ RV002/MC-81 (B-5) |

### 8-2-19. B WINDOW Adjustment

| Machine condition for adjustment | Specifications | Adjustments |
|---|---|---|
| • VIDEO IN: Color-bar signal | CH-1: TP008/MC-81 (D-5)<br>CH-2: TP009/MC-81 (D-4)<br> <br>T=15.0 ± 0.5 msec | ⊘ RV003/MC-81 (D-5) |

### 8-2-20. A WINDOW Adjustment

| Machine condition for adjustment | Specifications | Adjustments |
|---|---|---|
| • VIDEO IN: Color-bar signal | CH-1: TP010/MC-81 (F-5)<br>CH-2: TP011/MC-81 (D-5)<br> <br>T=13.0 ± 0.5 msec | ⊘ RV004/MC-81 (E-5) |

### 8-2-21. Picture Splitting Adjustment

| Machine condition for adjustment | Specifications | Adjustments |
|---|---|---|
|  | Set RV802 and RV803 on the MD-23P board to the mechanical center position, | ⊘ RV802/MD-23P (A-2)<br>⊘ RV803/MD-23P (A-2) |

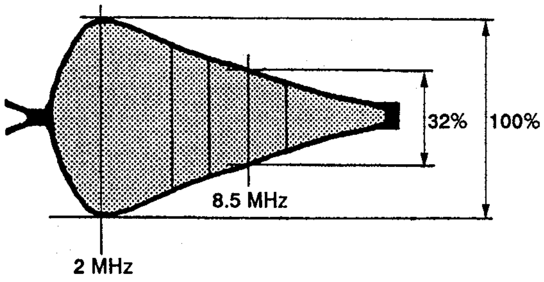
## 8-3. VIDEO SIGNAL SYSTEM ADJUSTMENT

### 8-3-1. Equipment Required

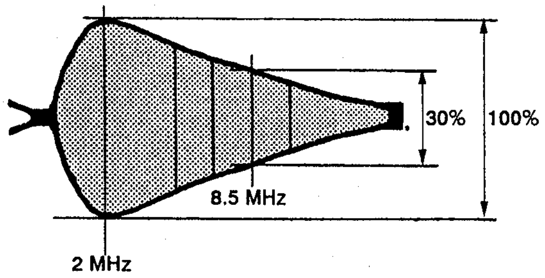
- Oscilloscope
- Frequency counter
- Pattern generator
- Digital voltmeter

| Name (Part No.) | REC mode | Tape Type | Tape Speed | Contents | |
|---|---|---|---|---|---|
| | | | | Video Area | PCM Area |
| Video freq. resp.<br>WR5-7CE<br>(8-967-995-18) | Hi8 | ME | LP | RF sweep 0 to 15 MHz<br>Marker: 2.0 MHz<br>4.5 MHz<br>7.0 MHz<br>8.5 MHz<br>10.0 MHz | |
| SP operation check<br>WR5-5CSP<br>(8-967-995-47) | STD | MP | SP | VIDEO SIGNAL<br>Color-bar: 4 min.<br>Monoscope: 4 min.<br>AUDIO SIGNAL (AFM)<br>400 Hz, 60% modulation | AUDIO SIGNAL (PCM)<br>• Monoscope Section<br>20 Hz: 20 sec.<br>400 Hz: 20 sec.<br>14 kHz: 20 sec.<br>• Color-Bar Section<br>1 kHz: 4 min. |
| SP operation check<br>WR5-8CSE<br>(8-967-995-48) | Hi8 | ME | SP | | AUDIO SIGNAL (PCM)<br>400 Hz: 20 min. |
| LP operation check<br>WR5-8CLE<br>(8-967-995-57) | Hi8 | ME | LP | VIDEO SIGNAL<br>Color-bar: 4 min.<br>Monoscope: 4 min.<br>AUDIO SIGNAL (AFM)<br>400 Hz, 60% modulation | |

### 8-3-2. SP PB Frequency Response Adjustment

| Machine condition for adjustment | Specifications | Adjustments |
|---|---|---|
| • Connect TP104/SE-10P (D-4) to ground with a jumper wire.<br>• Play back the alignment tape WR5-7CE.<br>• After adjustment, remove the jumper wire. | CN004-3/FR-43 (A-2)<br> <br>8.5 MHz=$32^{+4}_{-0}$% (in reference to 2 MHz) | ⊘ RV004/RP-103 (SP)<br>TRIG: CN004-2/FR-43 (A-2)<br>TRIG. SLOPE: – |
| | CN004-4/FR-43 (A-2)<br>8.5 MHz=$32^{+4}_{-0}$% (in reference to 2 MHz) | ⊘ RV003/RP-103 (SP)<br>TRIG: CN004-2/FR-43 (A-2)<br>TRIG. SLOPE: + |

### 8-3-3. LP PB Frequency Response Adjustment

| Machine condition for adjustment | Specifications | Adjustments |
|---|---|---|
| • Play back the alignment tape WR5-7CE. | CN004-5/FR-43 (A-2)<br> <br>8.5 MHz=$30^{+4}_{-0}$% (in reference to 2 MHz) | ⊘ RV004/RP-73 (LP)<br>TRIG: CN004-2/FR-43 (A-2)<br>TRIG. SLOPE: + |
| | CN004-6/FR-43 (A-2)<br>8.5 MHz=$30^{+4}_{-0}$% (in reference to 2 MHz) | ⊘ RV003/RP-73 (LP)<br>TRIG: CN004-2/FR-43 (A-2)<br>TRIG. SLOPE: – |

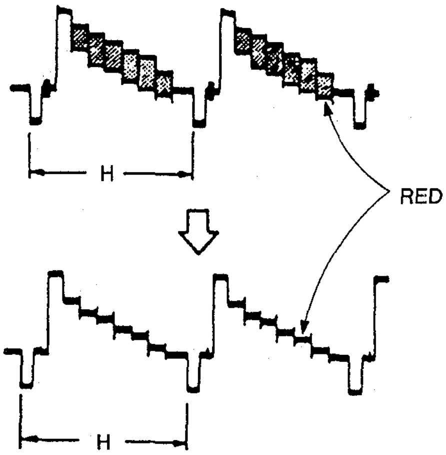
### 8-3-4. Flying Erase Confirmation

| Machine condition for adjustment | Specifications | Adjustments |
|---|---|---|
| • VIDEO IN : color-bar signal<br>• Use a Hi8 ME tape.<br>• REC mode | TP041/FR-43 (C-1)<br>8.0 ± 0.5 MHz | |

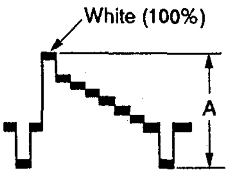
### 8-3-5. SubCarrier Frequency Adjustment

| Machine condition for adjustment | Specifications | Adjustments |
|---|---|---|
| • VIDEO IN: no signal<br>• PB mode | CN914-7/HK-5 (H-3)<br>4433618 ± 50 Hz | ⊘ CV601/HK-5 (B-4) |

### 8-3-6. PB C Comb Filter Adjustment

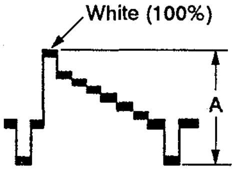
| Machine condition for adjustment | Specifications | Adjustments |
|---|---|---|
| • When adjusting the recorder, disconnect CN911/HK-5 (H-2).<br>• Supply the composite color-bar signal (Y=0.5 Vp-p, burst=0.15 Vp-p) to CN911-4/HK-5 (H-2).<br>• E-E mode<br>• After adjustment, connect the CN911. | IC501-26/HK-5 (B-3)<br> <br>Minimize residual chroma component at RED portion (30 mVp-p or less) | ⊘ RV502/HK-5 (B-2)<br>⊘ LV501/HK-5 (D-3) |

### 8-3-7. SYNC AGC Adjustment

| Machine condition for adjustment | Specifications | Adjustments |
|---|---|---|
| • VIDEO IN: color-bar signal<br>• E-E mode | TP402/HK-5 (E-3)<br> <br>A=0.50 ± 0.02 Vp-p | ⊘ RV302/HK-5 (E-1) |

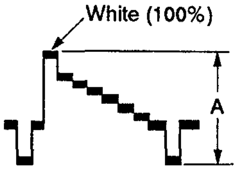
**Note:** This adjustment is not required for the player.

### 8-3-8. AGC Output Level Adjustment

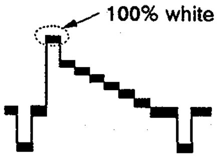
| Machine condition for adjustment | Specifications | Adjustments |
|---|---|---|
| • VIDEO IN: color-bar signal<br>• E-E mode | TP301/HK-5 (D-3)<br><br> <br>A=0.50 ± 0.02 Vp-p | ⊘RV405/HK-5 (C-1) |

**Note:** This adjustment is not required for the player.

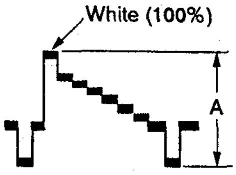
### 8-3-9. STD Mode PB Y Level Adjustment

| Machine condition for adjustment | Specifications | Adjustments |
|---|---|---|
| • Play back the color-bar signal portion of the alignment tape WR5-5CSP. | TP302/HK-5 (D-3)<br><br> <br>A=0.50 ± 0.02 Vp-p | ⊘RV304/HK-5 (E-3) |

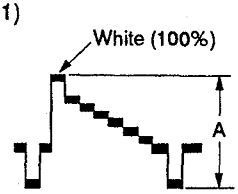
### 8-3-10. PB De-emphasis Adjustment

| Machine condition for adjustment | Specifications | Adjustments |
|---|---|---|
| • Play back the color-bar signal portion of the alignment tape WR5-5CSP. | TP302/HK-5 (D-3)<br><br> <br>100% white level=makes flat | ⊘RV303/HK-5 (D-2) |

### 8-3-11. Hi8 Mode PB Y Level Adjustment

| Machine condition for adjustment | Specifications | Adjustments |
|---|---|---|
| • Play back the color-bar signal portion of the alignment tape WR5-8CSE. | TP302/HK-5 (D-3)<br><br> <br>A=0.50 ± 0.02 Vp-p | ⊘RV305/HK-5 (E-3) |

### 8-3-12. E-E Y Output Level Adjustment

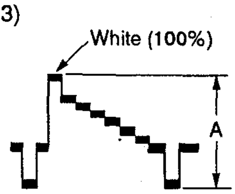
| At recorder adjustment: | • VIDEO IN: color-bar signal | Machine condition for |
|---|---|---|
| **At recorder adjustment:**<br>• VIDEO IN: color-bar signal<br>• E-E mode<br><br>**At player adjustment:**<br>• Play back the color-bar potion of the alignment tape WR5-8CSE. | TP303/HK-5 (E-1)<br> <br>A=1.00 ± 0.05 Vp-p | ⊘ RV301/HK-5 (E-1) |

### 8-3-13. STD Mode Y FM Carrier Adjustment

| Machine condition for adjustment | Specifications | Adjustments |
|---|---|---|
| • VIDEO IN: no signal<br>• Use a P5-MP series tape.<br>• E-E mode | TP401/HK-5 (D-3)<br>4.37 ± 0.02 MHz | ⊘ RV402/HK-5 (D-2) |

**Note:** This adjustment is not required for the player.

### 8-3-14. STD Mode Y FM Deviation Adjustment

| Machine condition for adjustment | Specifications | Adjustments |
|---|---|---|
| • VIDEO IN: color-bar signal<br>• Preform the self-recording/play back with a P5-MP series tape. | TP302/HK-5 (D-3)<br> <br>A=0.50 ± 0.02 Vp-p<br>• Repeat recording and play back several times until the level meets the specification. Adjust the RV403 during recording. | ⊘ RV403/HK-5 (E-2)<br>When turning in the clockwise direction, the level decreases. |

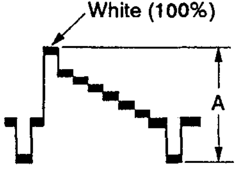
**Note:** This adjustment is not required for the player.

### 8-3-15. Hi8 Mode Y FM Carrier Adjustment

| Machine condition for adjustment | Specifications | Adjustments |
|---|---|---|
| • VIDEO IN: no signal<br>• Use Hi8 ME tape.<br>• E-E mode | TP401/HK-5 (D-3)<br>5.95 ± 0.02 MHz | ⊘ RV401/HK-5 (D-2) |

**Note:** This adjustment is not required for the player.

### 8-3-16. Hi8 Mode Y FM Deviation Adjustment

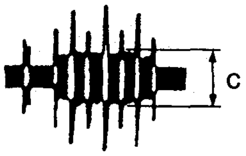
| Machine condition for adjustment | Specifications | Adjustments |
|---|---|---|
| • VIDEO IN: color-bar signal<br>• Preform the self-recording/play back with a Hi8 ME tape. | TP302/HK-5 (D-3)<br> <br>A=0.50 ± 0.02 Vp-p<br>• Repeat recording and play back several times until the level meets the specification. Adjust RV404 during recording. | ⊘RV404/HK-5 (D-2)<br>When turning in the clockwise direction, the level decreases. |

**Note:** This adjustment is not required for the player.

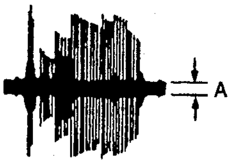
### 8-3-17. 375fH VCO Adjustment

| Machine condition for adjustment | Specifications | Adjustments |
|---|---|---|
| **At recorder adjustment:**<br>• VIDEO IN: Color-bar signal<br>• E-E mode | IC602-26/HK-5 (B-4)<br>3.0 ± 0.1Vdc | ⊘RV601/HK-5 (A-4) |
| **At player adjustment:**<br>• Play back the alignment tape WR5-5CSP or WR5-8CSE | | |

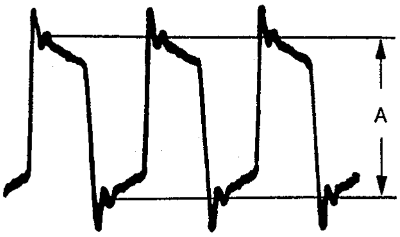
### 8-3-18. Chroma Emphasis fo Adjustment

| Machine condition for adjustment | Specifications | Adjustments |
|---|---|---|
| • Connect pin 47 of IC602 to Pin 7 of CN102/HK-5 (F-6) via 10 k ohm resistor.<br>• Connect pin 47 of IC602 to ground via 10 k ohm resistor.<br>• VIDEO IN: color-bar signal<br>• E-E mode<br>• After adjustment, remove the resistor.<br>**Note:** When adjusting the player, input the composite color-bar signal (Y=0.5 Vp-p, burst=0.15 Vp-p) into CN911-4/HK-5 (H-2), then connect a capacitor of 0.01 $\mu$F between CN911-2/HK-5 (H-2) and IC601-16/HK-5 (A-5). After adjustment, disconnect them. | IC601-11/HK-5 (A-5)<br> <br>C (chroma component)=minimum | ⊘T602/HK-5 (B-6) |

### 8-3-19. Carrier Balance Adjustment

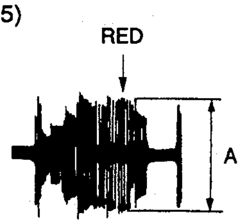
| Machine condition for adjustment | Specifications | Adjustments |
|---|---|---|
| • VIDEO IN: Color-bar signal<br>• E-E mode<br>**Note:** When adjusting the player, input the composite color-bar signal (Y=0.5 Vp-p, burst=0.15 Vp-p) into CN911-4/HK-5 (H-2), then connect a capacitor of 0.01 $\mu$F between CN911-2/HK-5 (H-2) and IC601-16/HK-5 (A-5). After adjustment, disconnect them. | IC602-40/HK-5 (B-4)<br> <br>A (5.17 MHz component)=minimum | ⊘ RV602/HK-5 (A-5) |

### 8-3-20. REC Y RF Level Adjustment

| Machine condition for adjustment | Specifications | Adjustments |
|---|---|---|
| • VIDEO IN: no signal<br>• Use a P5-MP tape<br>• E-E mode | TP201/HK-5 (D-6)<br> <br>A=0.50 ± 0.02 Vp-p | ⊘ RV202/HK-5 (D-5) |

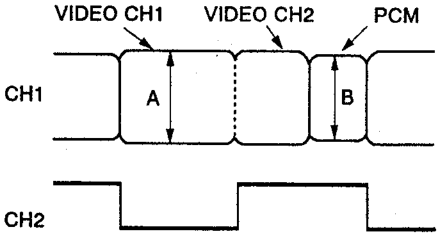
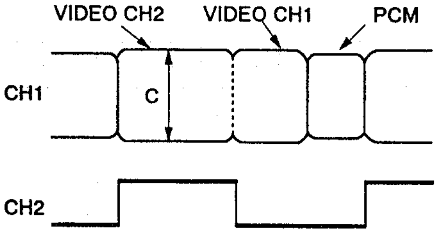
**Note:** This adjustment is not required for the player.

### 8-3-21. REC C RF Level Adjustment

| Machine condition for adjustment | Specifications | Adjustments |
|---|---|---|
| • Perform following connections.<br>Q211-emitter (F-5) ↔ Pin 7 of CN102/HK-5 (F-6)<br>CN101-3 (C-6) ↔ ground<br>Q608-emitter (D-5) ↔ ground<br>• VIDEO IN: color-bar signal<br>• Use a Hi8 ME tape<br>• E-E mode<br>• After adjustment, remove the jumper wires. | TP201/HK-5 (F-5)<br> <br>A=100 ± 10m Vp-p | ⊘ RV201/HK-5 (C-5) |

**Note:** This adjustment is not required for the player.

### 8-3-22. SP REC Current Adjustment

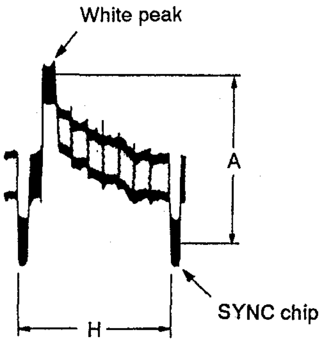
| Machine condition for adjustment | Specifications | Adjustments |
|---|---|---|
| **STEP 1**<br>• VIDEO IN: No signal<br>• Use Hi8 ME tape<br>• REC mode | CH1: TP001/FR-43 (A-1)<br>CH2: CN004-2/FR-43 (A-2)<br> <br>A (VIDEO CH1)=220 ± 10 mV<br>B (PCM)=220 ± 10 mV | VIDEO CH1<br>⊘RV002/FR-43 (C-2)<br>PCM<br>⊘RV002/RP103<br>TRIG: CN004-2/FR-43 (A-2) |
| **STEP 2**<br>• VIDEO IN: No signal<br>• Use Hi8 ME tape<br>• REC mode | CH1: Pin 20 of PR-103<br>CH2: CN004-2/FR-43 (A-2)<br> <br>C(VIDEO CH2)=220 ± 10 mV | VIDEO CH2<br>⊘RV001/FR-43 (D-2)<br>TRIG: CN004-2/FR-43 (A-2) |

**Note:** 1) Adjust only RV002/RP-103 for the player. At this time, video input signal is not required.
2) LP recording current adjustment (RV001, RV002/RP-73) is not required.

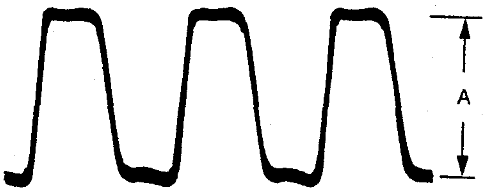
### 8-3-23. DOC Level Adjustmnt

| Machine condition for adjustment | Specifications | Adjustments |
|---|---|---|
| • Play back the alignment tape WR5-8CLE. | Q182-3 (base)/HK-5 (H-3)<br>+1.85 ± 0.01 Vdc | ⊘RV101/HK-5 (H-4) |

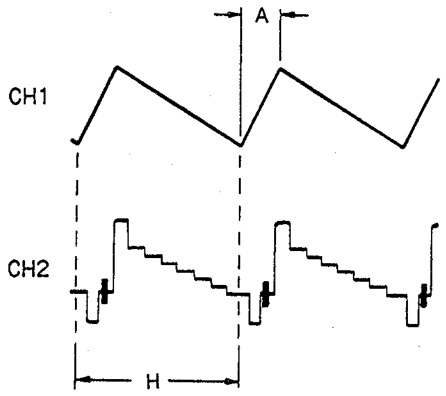
### 8-3-24. Comb AGC Adjustment

| Machine condition for adjustment | Specifications | Adjustments |
|---|---|---|
| • VIDEO IN: Color-bar signal<br>• E-E mode<br>**Note:** Be sure to connect a 22 kΩ of resistor in series between TP501 and 10:1 probe. When adjusting the player, input Y signal at 0.5 Vp-p to CN911-4/HK-5 (H-2). | TP501/HK-5 (C-2)<br> <br>A=0 ± 100 mVp-p | ⊘ RV501/HK-5 (B-2) |

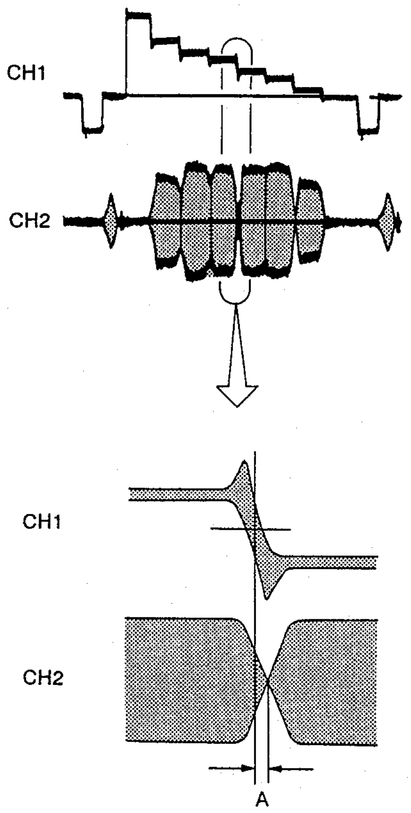
### 8-3-25. GCA GAIN Adjustment

| Machine condition for adjustment | Specifications | Adjustments |
|---|---|---|
| • Play back the alignment tape WR5-8CSE. | IC801-22/HK-5 (A-3)<br> <br>A=500 ± 25 mV | ⊘ RV801/HK-5 (A-3) |

### 8-3-26. fH VCO Adjustment

| Machine condition for adjustment | Specifications | Adjustments |
|---|---|---|
| • VIDEO IN: Color-bar signal<br>• E-E mode<br>**Note**: Confirm that CH1 and CH2 waveform is stable. | CH1: IC801-13/HK-5 (A-3)<br>CH2: TP303/HK-5 (E-1)<br> <br>A=14.5 ± 0.2 μsec | ⊘ RV802/HK-5 (A-3) |

### 8-3-27. Y/C DELAY Adjustment

| Machine condition for adjustment | Specifications | Adjustments |
|---|---|---|
| • Play back the color bar portion of the alignment tape WR5-8CSE. | CH1: TP303/HK-5 (E-1)<br>CH2: TP801/HK-5 (A-1)<br> <br>Minimize the A | ⊘ RV700/HK-5 (H-5) |

## 8-4. VIDEO INPUT/OUTPUT CIRCUIT ADJUSTMENT

### 8-4-1. Instruments to be Used for Video Input/output Circuit Adjustment

- Pattern generator (with S VIDEO output terminal)
- Oscilloscope
- Monitor TV
- Digital voltmeter
- Alignment tapes

| Name (Part No.) | REC mode | Tape Type | Tape Speed | Contents | |
|---|---|---|---|---|---|
| | | | | Video Area | PCM Area |
| SP operation check<br>WR5-8CSE<br>(8-967-995-48) | Hi8 | ME | SP | VIDEO SIGNAL<br>Color-bar: 4 min.<br>Monoscope: 4 min.<br>AUDIO SIGNAL (AFM)<br>400 Hz, 60% modulation | AUDIO SIGNAL (PCM)<br>400 Hz: 20 min. |

### 8-4-2. Switch Setting

Recorder input select video switch ············LINE

Recorder input select line switch

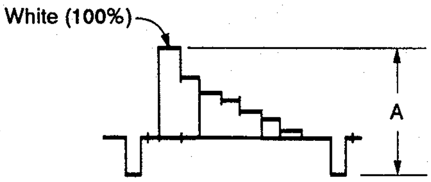
At video signal input ····························VIDEO

At S video signal input··························S VIDEO

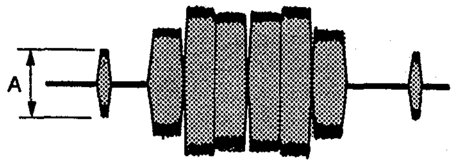
### 8-4-3. Fsc Adjustment

| Machine condition for adjustment | Specifications | Adjustments |
|---|---|---|
| • VIDEO IN: No signal<br>• Recorder: STOP mode | TP201/YC-106<br>4.433618 ± 0.00002 MHz | ⊘CV201/YC-106 |

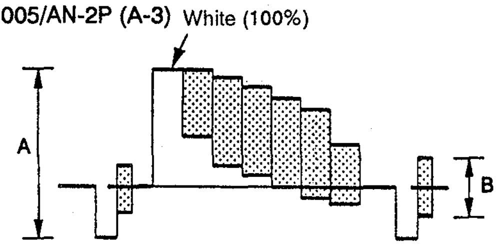
### 8-4-4. Y Level Adjustment

| Machine condition for adjustment | Specifications | Adjustments |
|---|---|---|
| • VIDEO IN: Color-bar signal<br>• Recorder: STOP mode | TP204/YC-106<br> <br>A=1.00 ± 0.05 Vp-p | ⊘RV601/YC-106 |

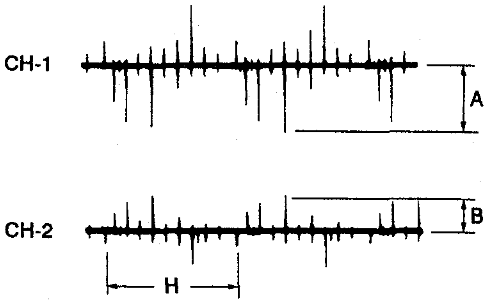
### 8-4-5. Chroma Level Adjustment

| Machine condition for adjustment | Specifications | Adjustments |
|---|---|---|
| • VIDEO IN: Color-bar signal<br>• Recorder: STOP mode | TP205/YC-106<br> <br>A=300 ± 10 mVp-p | ⊘ RV602/YC-106 |

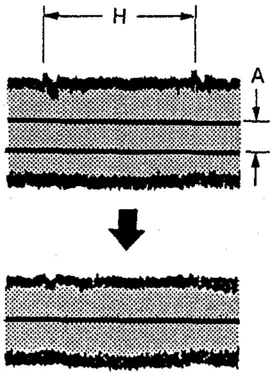
### 8-4-6. Y/C MIX Level Adjustment

| Machine condition for adjustment | Specifications | Adjustments |
|---|---|---|
| • S VIDEO IN: Color-bar signal<br>• VIDEO/S VIDEO select switch is set to S VIDEO position.<br>• Recorder: STOP mode | TP005/AN-2P (A-3)<br> <br>A=2.00 ± 0.05 Vp-p<br>B=600 ± 30 mVp-p | **Y level adjustment**<br>⊘ RV003/AN-2P (A-3)<br>**Chroma level adjustment**<br>⊘ RV002/AN-2P (A-3) |

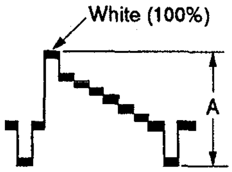
### 8-4-7. Noise Cancel +6 dB Amplifier Adjustment

| Machine condition for adjustment | Specifications | Adjustments |
|---|---|---|
| • Play back the color-bar section of alignment tape WR5-8CSE.<br>• When adjusting the YX-2P (PB) board, play it back with player.<br>• When adjusting the YX-2P (REC) board, play it back with recorder. | CH-1: IC002-1/YX-2P (E-3)<br>CH-2: IC001-1/YX-2P (E-1)<br> <br>Peak level B×2=Peak level A | ⊘ RV003/YX-2P (E-2) |

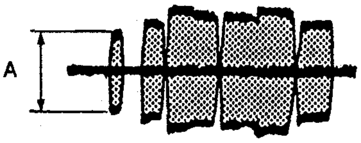
### 8-4-8. Limiter Cancel Adjustment

| Machine condition for adjustment | Specifications | Adjustments |
|---|---|---|
| • Play back the monoscope section of the alignment tape WR5-8CSE.<br>• When adjusting the YX-2P (PB) board, play it back with player.<br>• When adjusting the YX-2P (REC) board, play it back with recorder. | CH-1: IC003-1/YX-2P (E-3)<br> <br>A=Minimum | ⊘ RV004/YX-2P (E-3)<br>TRIG: CN004-1/YX-2P (F-1) |

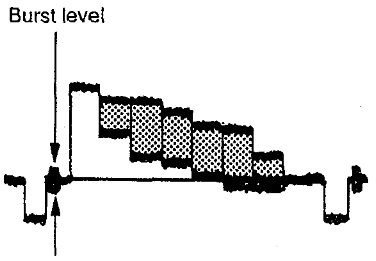
### 8-4-9. PB Y Level Adjustment

| Machine condition for adjustment | Specifications | Adjustments |
|---|---|---|
| • Play back the color-bar section of the alignment tape WR5-8CSE.<br>• When adjusting the YX-2P (PB) board, play it back with player.<br>• When adjusting the YX-2P (REC) board, play it back with recorder. | IC206-1/YX-2P (C-1)<br> <br>A=1.00 ± 0.03 Vp-p | ⊘ RV001/YX-2P (E-2) |

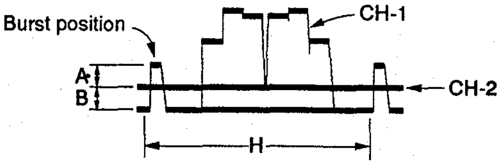
### 8-4-10. PB Chroma Level Adjustment

| Machine condition for adjustment | Specifications | Adjustments |
|---|---|---|
| • Play back the color-bar section of the alignment tape WR5-8CSE.<br>• When adjusting the YX-2P (PB) board, play it back with player.<br>• When adjusting the YX-2P (REC) board, play it back with recorder. | IC207-1/YX-2P (C-1)<br> <br>A=0.3 ± 0.02 Vp-p | ⊘ RV002/YX-2P (D-2) |

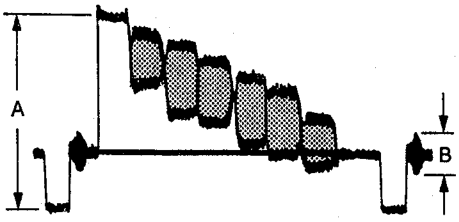
### 8-4-11. YX Filter Adjustment

| Machine condition for adjustment | Specifications | Adjustments |
|---|---|---|
| • Disconnect CN001/YX-2P (C-1) and input the composite video signal at 30 mVp-p burst level to CN001/YX-2P (C-1).<br>• Connect CN002-1/YX-2P (B-1) and GND with a jumper wire.<br>• Play back the alignment tape WR5-8CSE.<br>• Turn RV206/YX-2P fully clockwise (↻) seeing from component side.<br>• After adjustment, connect the CN001 and remove the jumper wire. | TP203/YX-2P (C-3)<br> | ⊘RV202/YX-2P (C-3)<br>⊘RV203/YX-2P (B-3) |
| | **STEP 1**<br>Set RV202 to the mechanical center position to minimize the burst level with RV203. | |
| | **STEP 2**<br>Turn RV202 fully clockwise (↻) seeing from component side and measure the burst level at this time. | |
| | **STEP 3**<br>Slowly turn RV202 counterclockwise (↺) and stop at the position where the burst level becomes 1/4. | |

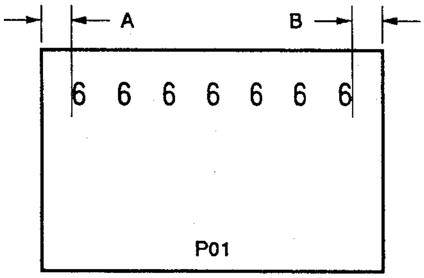
### 8-4-12. YX Filter Chroma Control Level Adjustment

| Machine condition for adjustment | Specifications | Adjustments |
|---|---|---|
| • Play back the color-bar section of the alignment tape WR5-8CSE.<br>• When adjusting the YX-2P (PB) board, play it back with player.<br>• When adjusting the YX-2P (REC) board, play it back with recorder. | **STEP 1**<br>CH-1: TP207/YX-2P (A-2) (DC range)<br>CH-2: TP207/YX-2P (A-2) (DC range)<br>Overlap the waveforms of CH-1 and CH-2 with the position knob of oscilloscope. | ⊘RV206/YX-2P (A-1) |
| | **STEP 2**<br>CH-1: TP207/YX-2P (A-2) (DC range)<br>CH-2: TP206/YX-2P (A-1) (DC range)<br> <br>Adjust RV206 to be A=B.<br>Level difference: 20% below | |

### 8-4-13. Y/C Mix Level Adjustment

| Machine condition for adjustment | Specifications | Adjustments |
|---|---|---|
| • Play back the color-bar section of the alignment tape WR5-8CSE.<br>• When adjusting YX-2P (PB) board, play it back with player.<br>• When adjusting YX-2P (REC) board, play it back with recorder. | TP208/YX-2P (A-1)<br> <br>A=2.05 ± 0.05 Vp-p<br>B=600 ± 30 mVp-p | **Y level**<br>⊘ RV204/YX-2P (B-3)<br>**Chroma level**<br>⊘ RV205/YX-2P (B-3) |

### 8-4-14. Title Letter Position Adjustment

| Machine condition for adjustment | Specifications | Adjustments |
|---|---|---|
| • Connect the title keyboard and press the TITLE key.<br>• Press the 6 key on the title keyboard, and display "6" one line on the monitor screen. |  <br>A=B | ⊘ CV001/MC-81 (A-2) |

## 8-5. DIGITAL PICTURE CIRCUIT ADJUSTMENT

### 8-5-1. Instruments to be Used for Digital Picture Circuit Adjustment

- Pattern generator
- Oscilloscope
- Frequency counter
- Digital voltmeter

### 8-5-2. Setting for Switch and Operation Mode

Recorder input select video switch············LINE
Recorder input select line switch···············VIDEO
Recorder············································STOP mode
Player················································STOP mode

### 8-5-3. AFC Adjustment

| Machine condition for adjustment | Specifications | Adjustments |
|---|---|---|
| • VIDEO IN: No signal<br>• Connect pin 5 (G-3) of IC704 and pin 1 (B-1) of CN002 with 10 kΩ resistance.<br>• Connect pins 10 (G-3) and 11 of IC704 with 1 MΩ resistance.<br>• After the adjustment, remove the resistances of 10 kΩ and 1 MΩ . | TP603 YWCK/MM-25 (G-2)<br>14.21875 ± 0.05 MHz | ⊘ CV701/MM-25 (G-2) |

### 8-5-4. APC Adjustment

| Machine condition for adjustment | Specifications | Adjustments |
|---|---|---|
| • VIDEO IN: No signal | TP606 CWCK/MM-25 (F-3)<br>17.734475 ± 0.0005 MHz | ⊘ CV705/MM-25 (F-2) |

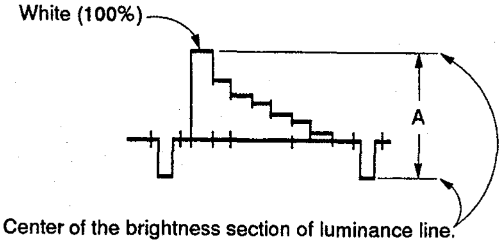
### 8-5-5. V-PLL Adjustment

| Machine condition for adjustment | Specifications | Adjustments |
|---|---|---|
| • VIDEO IN: No signal | TP609 YRCK/MM-25 (C-2)<br>14.21875 ± 0.0002 MHz | ⊘ CV704/MM-25 (D-2) |

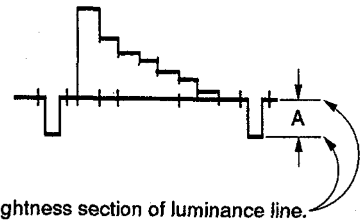
### 8-5-6. Chroma Encoder Adjustment

| Machine condition for adjustment | Specifications | Adjustments |
|---|---|---|
| • VIDEO IN: No signal | TP607 CRCK/MM-25 (A-2)<br>17.734475 ± 0.00025 MHz | ⊘ CV703/MM-25 (B-2) |

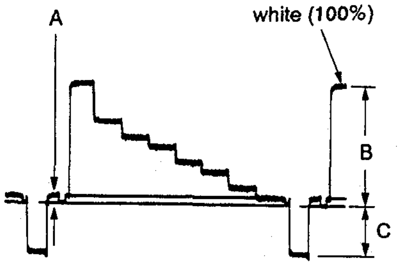
### 8-5-7. Y Input Level Adjustment

| Machine condition for adjustment | Specifications | Adjustments |
|---|---|---|
| • VIDEO IN: Color-bar signal | Q903 emitter/MM-25 (G-2)<br><br> <br>Center of the brightness section of luminance line.<br>A=1.35 ± 0.02V | ⊘ RV602/MM-25 (G-2) |

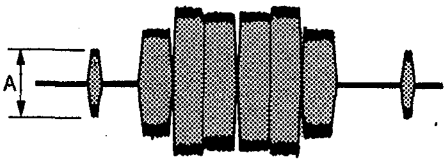
### 8-5-8. Y Output Level Adjustment

| Machine condition for adjustment | Specifications | Adjustments |
|---|---|---|
| • VIDEO IN: Color-bar signal | CN003-5/MM-25 (A-1)<br><br> <br>Center of the brightness section of luminance line.<br>A=0.30 ± 0.01V | ⊘ RV603/MM-25 (C-1) |

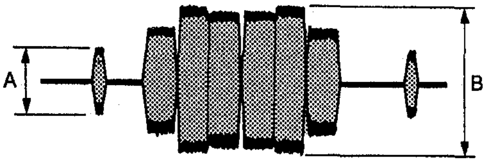
### 8-5-9. Y Clamp Level Adjustment

| Machine condition for adjustment | Specifications | Adjustments |
|---|---|---|
| • VIDEO IN: Color-bar signal | CN003-5/MM-25 (A-1)<br><br> <br>A=minimum<br>B : C=7 : 3 | ⊘ RV902/MM-25 (G-1) |

### 8-5-10. Burst Level Adjustment

| Machine condition for adjustment | Specifications | Adjustments |
|---|---|---|
| • VIDEO IN: Color-bar signal | CN003-7/MM-25 (A-1)<br> <br>A=300 ± 10 mVp-p | ⊘ RV604/MM-25 (A-2) |

### 8-5-11. C Output Level Adjustment

| Machine condition for adjustment | Specifications | Adjustments |
|---|---|---|
| • VIDEO IN: Color-bar signal | CN003-7/MM-25 (A-1)<br> <br>A : B=1 : (2.2 ± 0.1) | ⊘ RV601/MM-25 (F-1) |

## 8-6. PICTURE IN PICTURE CIRCUIT ADJUSTMENT

### 8-6-1. Instruments to be Used for Picture in Picture Circuit Adjustment

- Oscilloscope
- Frequency counter
- Vectorscope

### 8-6-2. Setting for Switches and Operation Modes

Recorder input select video switch············LINE
Recorder input select line switch···············VIDEO
Mode select switch (rear panel)················B
Recorder·············································STOP mode
Player················································STOP mode

### 8-6-3. Decoder Free-running Frequency Adjustment

| Machine condition for adjustment | Specifications | Adjustments |
|---|---|---|
| • VIDEO IN: No signal<br>• Connect pin 27/PM-11P (E-1) of IC110 and pin 1/PM-11P (D-4) of CN103 with jumper wire.<br>• After the adjustment, remove the jumper wire. | IC110-18/PM-11P (E-1)<br>4433619 ± 20 Hz | ⊘CV103/PM-11P (D-1) |

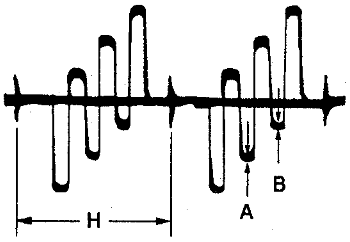
### 8-6-4. Encoder Free-running Frequency Adjustment

| Machine condition for adjustment | Specifications | Adjustments |
|---|---|---|
| • VIDEO IN: No signal<br>• Connect pin 18/PM-11P (E-3) of IC101 and pin 1/PM-11P (D-4) of CN103 with jumper wire.<br>• After the adjustment, remove the jumper wire. | IC101-19/PM-11P (E-3)<br>17734475 ± 50 Hz | ⊘CV101/PM-11P (F-3) |

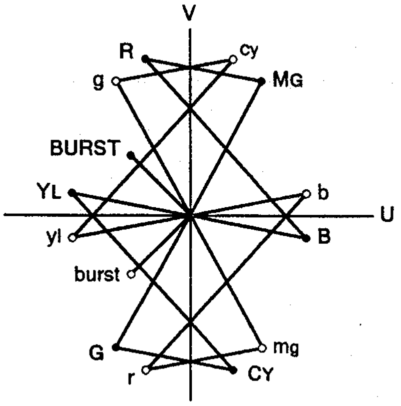
### 8-6-5. Write Clock Adjustment

| Machine condition for adjustment | Specifications | Adjustments |
|---|---|---|
| • VIDEO IN: Color-bar signal<br>• Connect pin 6/PM-11P (G-4) of IC105 to ground with jumper wire.<br>• Remove the jumper wire after the adjustment. | IC105-1/PM-11P (G-3)<br>4.80 ± 0.03 MHz | ⊘CV102/PM-11P (G-3) |

### 8-6-6. Tint Adjustment

| Machine condition for adjustment | Specifications | Adjustments |
|---|---|---|
| • VIDEO IN: Color-bar signal | IC112-5/PM-11P (E-1)<br><br> <br>A=minimum<br>B=minimum | ⊘RV103/PM-11P (D-2) |

### 8-6-7. Hue and Chroma Level Adjustments

| Machine condition for adjustment | Specifications | Adjustments |
|---|---|---|
| • VIDEO IN: Color-bar signal | Video monitor out/rear panel<br>Phase difference=0 ± 5°<br>Gain difference=0 ± 5%<br><br> V<br>R<br>cy<br>g<br>MG<br>BURST<br>YL<br>b<br>U<br>yl<br>B<br>burst<br>G<br>mg<br>r<br>CY<br>• Adjust RV101 and RV102 alternately to match the color luminance points of main and sub pictures. | **Hue adjustment**<br>⊘RV101/PM-11P (E-2)<br>**Chroma level adjustment**<br>⊘RV102/PM-11P (E-2) |

## 8-7. AUDIO SIGNAL SYSTEM ADJUSTMENT

### 8-7-1. Equipment Required

- Oscilloscope
- Frequency counter
- Audio signal generator
- Audio level meter
- Pattern generator (for video input)
- Alignment tape

| Name (Part No.) | REC mode | Tape Type | Tape Speed | Contents | |
|---|---|---|---|---|---|
| | | | | Video Area | PCM Area |
| SP operation check<br>WR5-8CSE<br>(8-967-995-48) | Hi8 | ME | SP | VIDEO SIGNAL<br>Color-bar: 4 min.<br>Monoscope: 4 min.<br>AUDIO SIGNAL (AFM)<br>400 Hz, 60% modulation | AUDIO SIGNAL (PCM)<br>400 Hz: 20 min. |
| LP operation check<br>WR5-8CLE<br>(8-967-995-57) | Hi8 | ME | LP | VIDEO SIGNAL<br>Color-bar: 4 min.<br>Monoscope: 4 min.<br>AUDIO SIGNAL (AFM)<br>400 Hz, 60% modulation | AUDIO SIGNAL (PCM)<br>400 Hz: 20 min. |

### 8-7-2. PCM Master Clock Adjustment

**Note:** Before adjustment, remove the PA-27 board.

| Machine condition for adjustment | Specifications | Adjustments |
|---|---|---|
| • Connect pin 14 of IC853/PD-19P (A-1) and pin 11 of CN852/PD-19P (B-3) with jumper wire.<br>• E-E mode<br>• After the adjustment, remove jumper wire. | IC853-8/PD-19P (A-1)<br>11.45 ± 0.01 MHz | ⊘ RV851/PD-19P (A-2) |

### 8-7-3. PCM Playback VCO Free-Frequency Adjustment

**Note:** Before adjustment, remove the PA-27 board.

| Machine condition for adjustment | Specifications | Adjustments |
|---|---|---|
| • Connect pin 9 of CN851/PD-19P (B-1) and pin 11 of CN852/PD-19P (C-3) with jumper wire.<br>• Connect pins 7 and 8 of CN852/PD-19P (C-3) with jumper wire.<br>• E-E mode<br>• After the adjustment, remove jumper wires. | IC854-8/PD-19P (A-2)<br>11.58 ± 0.05 MHz | ⊘ RV854/PD-19P (A-2) |

### 8-7-4. D/A Converter Level Adjustment

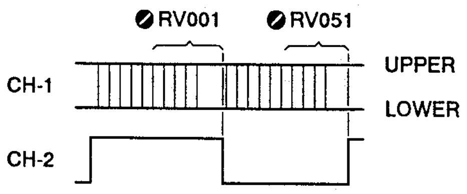
| Machine condition for adjustment | Specifications | Adjustments |
|---|---|---|
| • Play back the Audio 400 Hz portion of the alignment tape WR5-8CSE. | CN001-16/PA-27 (A-2)<br>–10.0 ± 0.2 dBs | ⊘ RV032/PA-27 (A-1) |

### 8-7-5. NR Decode Level Adjustment

| Machine condition for adjustment | Specifications | Adjustments |
|---|---|---|
| • Play back the Audio 400 Hz portion of the alignment tape WR5-8CSE. | CN001-20/PA-27 (A-3)<br>–14.0 ± 0.5 dBs<br>• If adjustment value doesn't meet the specification, change the value of resistors as follows and perform adjustment again.<br>R062 12k→13k<br>R012 12k→13k<br>**Note:** Connect the level meter to pin 20 of CN001 through 100Ω resistanse. | ⊘ RV031/PA-27 (C-1) |

### 8-7-6. A/D Converter Offset Adjustment

**Note:** This adjustment is not required for the player.

| Machine condition for adjustment | Specifications | Adjustments |
|---|---|---|
| • Connect pin 8 of CN001/PA-27 (A-2) to pin 17 of CN001/PA-27 (A-2) with jumper wire.<br>• Connect pins 15 and 18 of CN001 with jumper wire.<br>• Connect pins 4 and 3 of CN001 with jumper wire.<br>• REC mode (no signal input)<br>• After adjustment, remove jumper wires. | CH-1: CN001-11/PA-27 (A-2)<br>CH-2: CN001-9/PA-27 (A-2)<br> <br>Adjust upper and lower brightnesses for the same. | L-CH<br>⊘ RV001/PA-27 (B-2)<br>R-CH<br>⊘ RV051/PA-27 (B-1) |

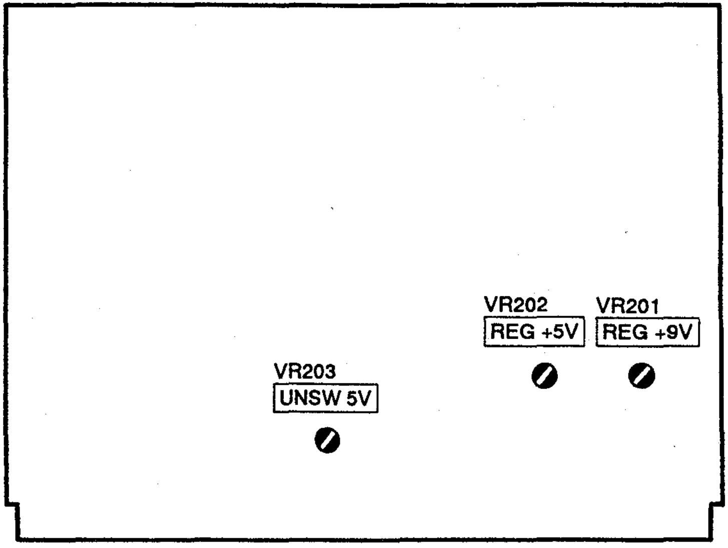
### 8-7-7. PCM REC Level Adjustment

**Note:** 1) *This adjustment should be performed after completion of "8-7-5. NR Decoded Level Adjustment".*
2) This adjustment is not required for the player.
3) Connect the level meter to pin 20 of CN001 or pin 1 of CN001 through 100Ω resistance.

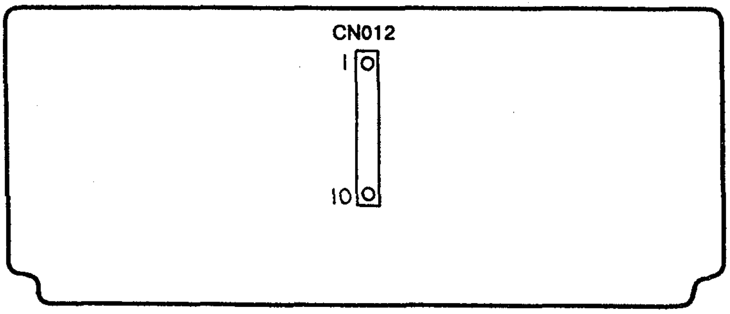
| Machine condition for adjustment | Specifications | Adjustments |
|---|---|---|
| • AUDIO LINE IN: 400 Hz/–7.5 dB<br>• Set the recorder input select audio switch to LINE position.<br>• *Adjust the PCMREC level so that* the signal levels of CN001-20/PA-27 (A-3) and CN001-1/PA-27 (A-1) become –18 dBs in the E-E mode.<br>• Preform the self-recording/play back with a Hi8 ME tape. | L-CH: CN001-20/PA-27 (A-3)<br>–14.0 ± 0.1 dBs | L-CH<br>⊘ RV002/PA-27 (B-3) |
| | R-CH: CN001-1/PA-27 (A-1)<br>–14.0 ± 0.1 dBs | R-CH<br>⊘ RV052/PA-27 (B-1) |

## 8-8. ADJUSTMENT RELATED PARTS ARRANGEMENT DIAGRAMS

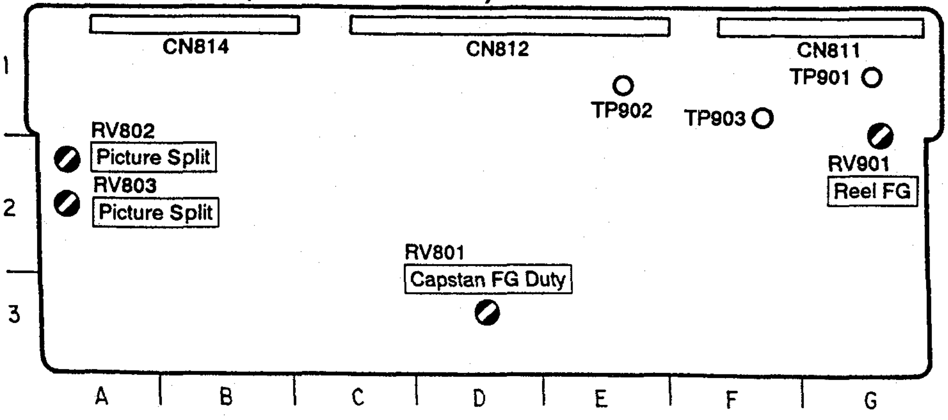
### POWER BLOCK (COMPONENT SIDE)


VR202
REG +5V
VR201
REG +9V
VR203
UNSW 5V

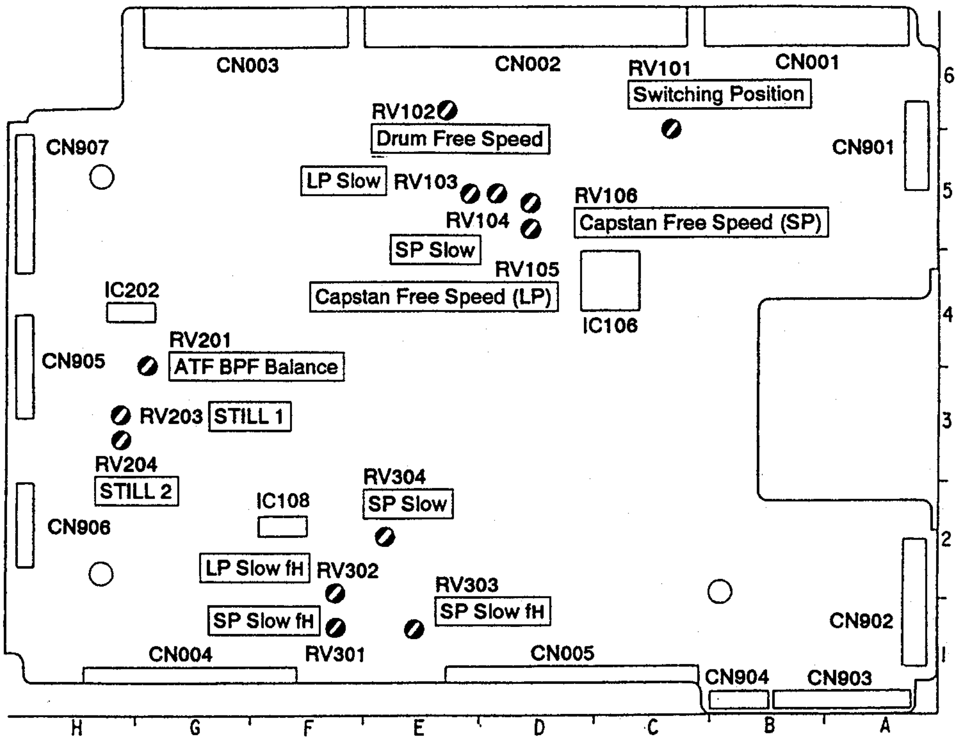
### IG-14 BOARD



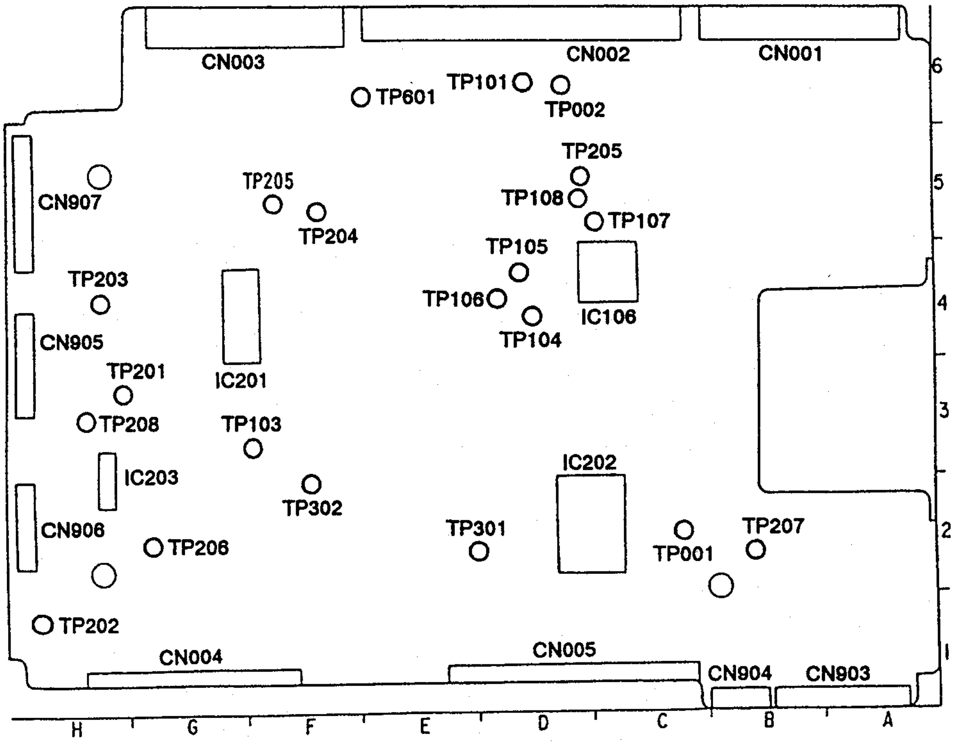
### MD-23P BOARD (COMPONENT SIDE)


CN814
CN812
CN811
TP901
TP902
TP903
RV802
Picture Split
RV803
Picture Split
RV901
Reel FG
RV801
Capstan FG Duty
1
2
3
A
B
C
D
E
F
G

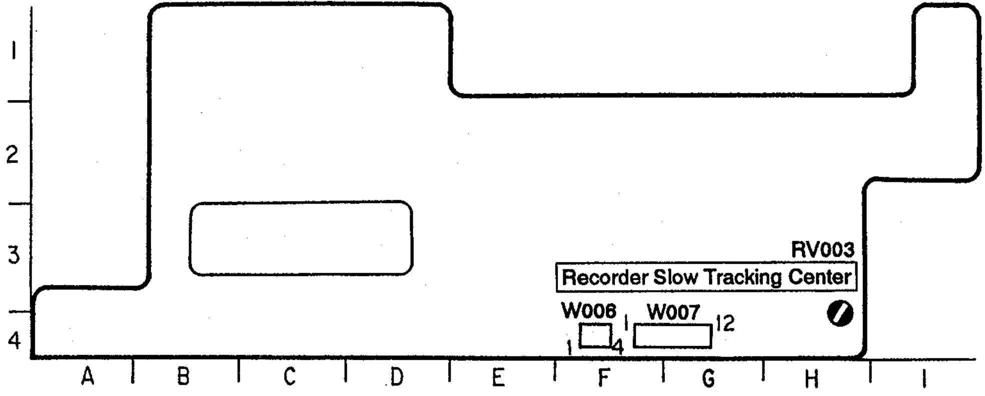
## RV's on the SE-10P Board Location (Component Side)


CN003
CN002
CN001
RV101
Switching Position
RV102
Drum Free Speed
CN907
CN901
LP Slow
RV103
RV106
RV104
Capstan Free Speed (SP)
SP Slow
RV105
IC202
Capstan Free Speed (LP)
IC106
RV201
CN905
ATF BPF Balance
RV203
STILL 1
RV204
STILL 2
RV304
IC108
SP Slow
CN906
LP Slow fH
RV302
RV303
SP Slow fH
SP Slow fH
CN902
CN004
RV301
CN005
CN904
CN903
6
5
4
3
2
1
H
G
F
E
D
C
B
A

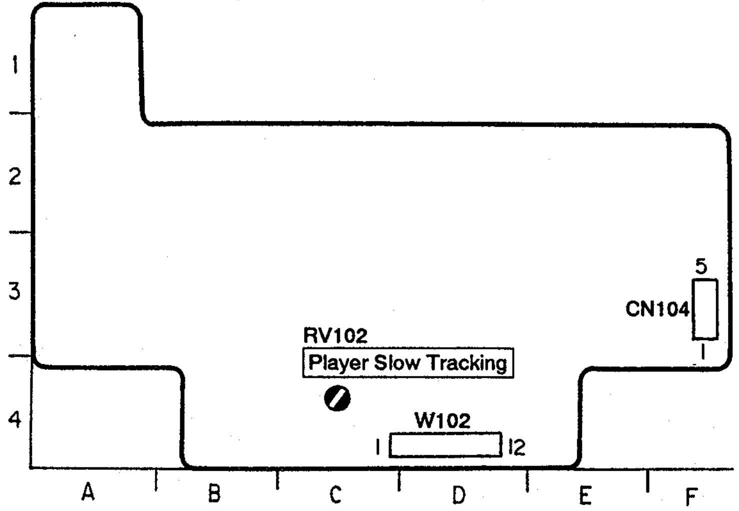
## TP's on the SE-10P Board Location (Component Side)


CN003
CN002
CN001
TP601
TP101
TP002
TP205
CN907
TP205
TP108
TP107
TP204
TP105
TP203
IC106
TP106
CN905
TP104
TP201
IC201
TP208
TP103
IC203
IC202
TP302
CN906
TP206
TP301
TP001
TP207
TP202
CN004
CN005
CN904
CN903
6
5
4
3
2
1
H
G
F
E
D
C
B
A

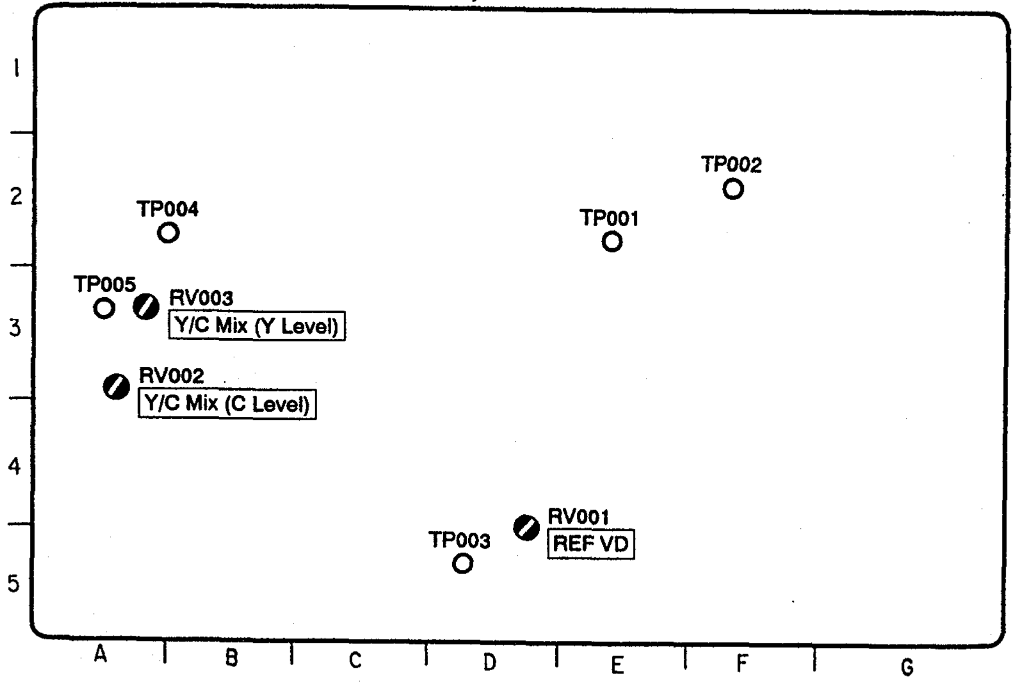
## FB-170 BOARD (COMPONENT SIDE)


RV003
Recorder Slow Tracking Center
W006
W007
1
4
1
12
1
2
3
4
A
B
C
D
E
F
G
H
I

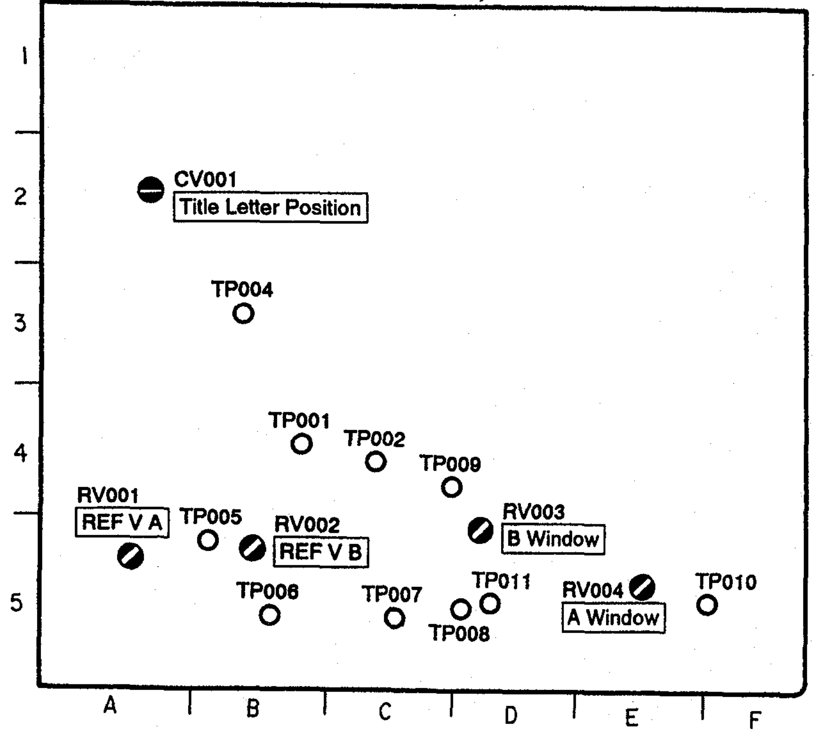
## FB-171 BOARD (COMPONENT SIDE)


RV102
Player Slow Tracking
W102
1
12
CN104
5
1
1
2
3
4
A
B
C
D
E
F

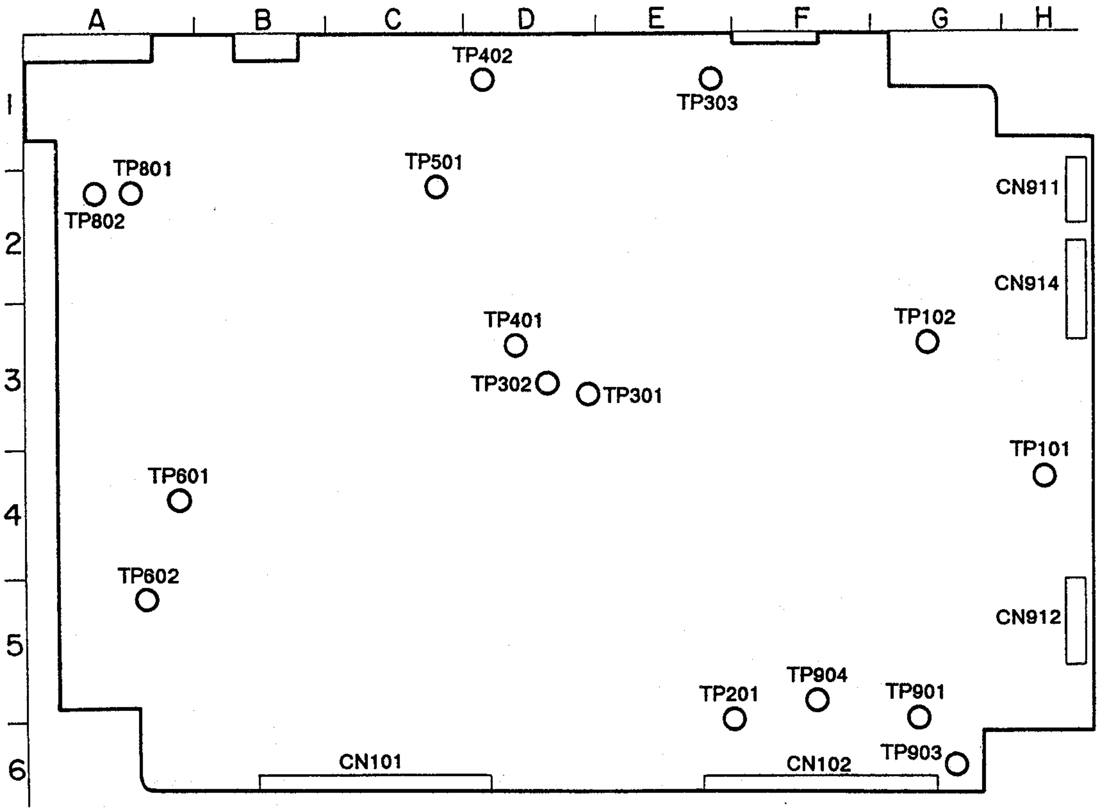
## AN-2P BOARD (COMPONENT SIDE)


1
2
3
4
5
A
B
C
D
E
F
G
TP002
TP004
TP001
TP005
RV003
Y/C Mix (Y Level)
RV002
Y/C Mix (C Level)
RV001
REF VD
TP003

## MC-81 BOARD (COMPONENT SIDE)

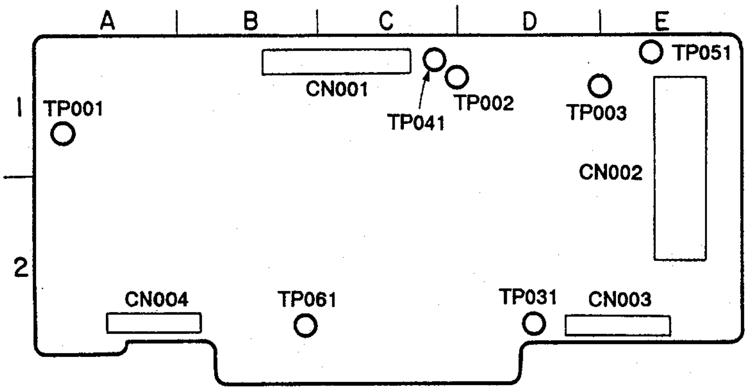

1
2
3
4
5
A
B
C
D
E
F
CV001
Title Letter Position
TP004
TP001
TP002
TP009
RV001
REF V A
TP005
RV002
REF V B
RV003
B Window
TP006
TP007
TP011
TP008
RV004
A Window
TP010

### TP's on the HK-5 Board Location


A
B
C
D
E
F
G
H
1
2
3
4
5
6
TP402
TP303
TP801
TP802
TP501
CN911
CN914
TP401
TP102
TP302
TP301
TP101
TP601
TP602
CN912
TP904
TP201
TP901
CN101
CN102
TP903

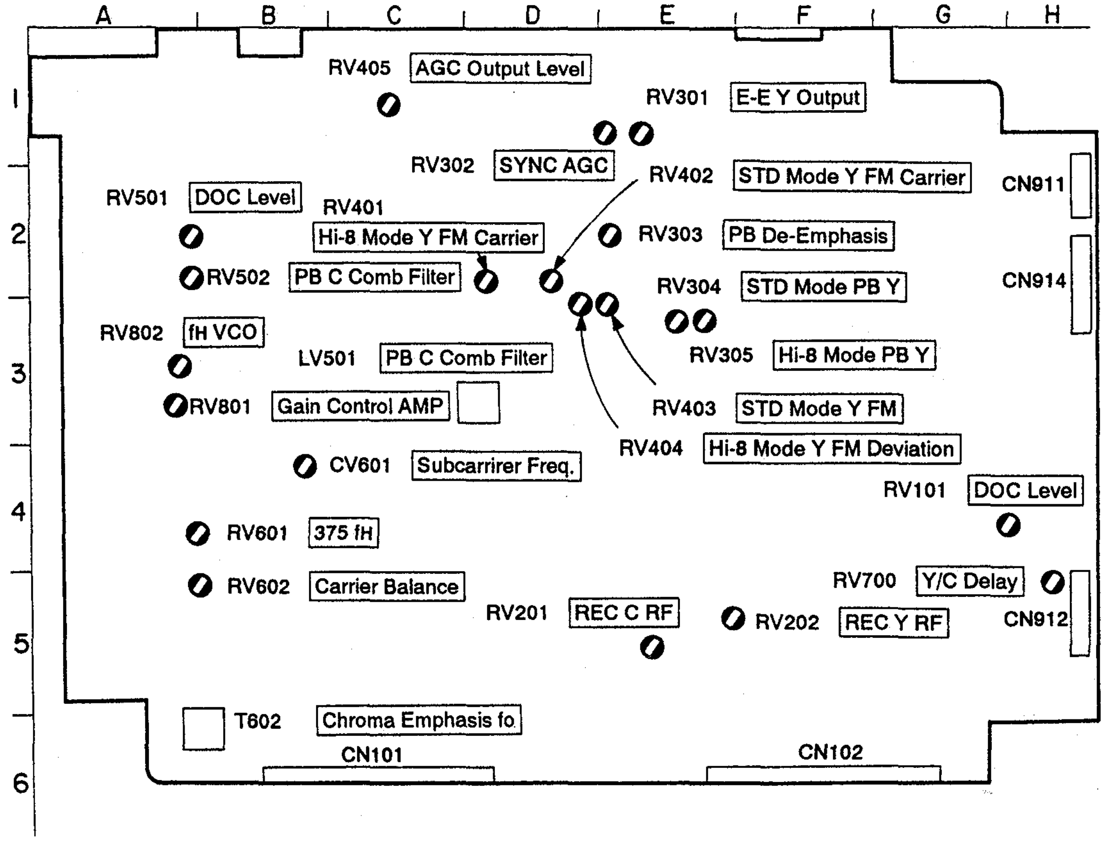
Place the unit on its right side down. Remove the Bottom Plate and Core Shild Plate. Open the HK-5 Board.

### TP's on the FR-43 Board Location


A
B
C
D
E
1
2
TP051
CN001
TP002
TP003
TP001
TP041
CN002
CN004
TP061
TP031
CN003

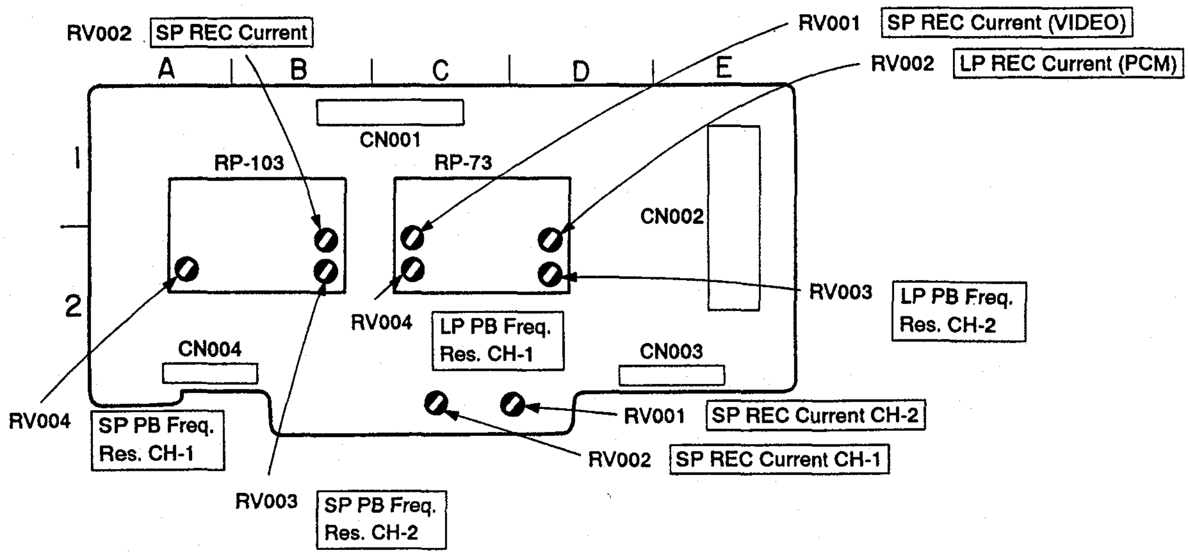
Remove the Top Plate and Open the MB-19P Board.

## RV's on the HK-5 Board Location


A
B
C
D
E
F
G
H
1
2
3
4
5
6
RV405
AGC Output Level
RV301
E-E Y Output
RV302
SYNC AGC
RV402
STD Mode Y FM Carrier
CN911
RV501
DOC Level
RV401
Hi-8 Mode Y FM Carrier
RV303
PB De-Emphasis
RV502
PB C Comb Filter
RV304
STD Mode PB Y
CN914
RV802
fH VCO
LV501
PB C Comb Filter
RV305
Hi-8 Mode PB Y
RV801
Gain Control AMP
RV403
STD Mode Y FM
RV404
Hi-8 Mode Y FM Deviation
CV601
Subcarrirer Freq.
RV101
DOC Level
RV601
375 fH
RV700
Y/C Delay
RV602
Carrier Balance
RV201
REC C RF
RV202
REC Y RF
CN912
T602
Chroma Emphasis fo
CN101
CN102

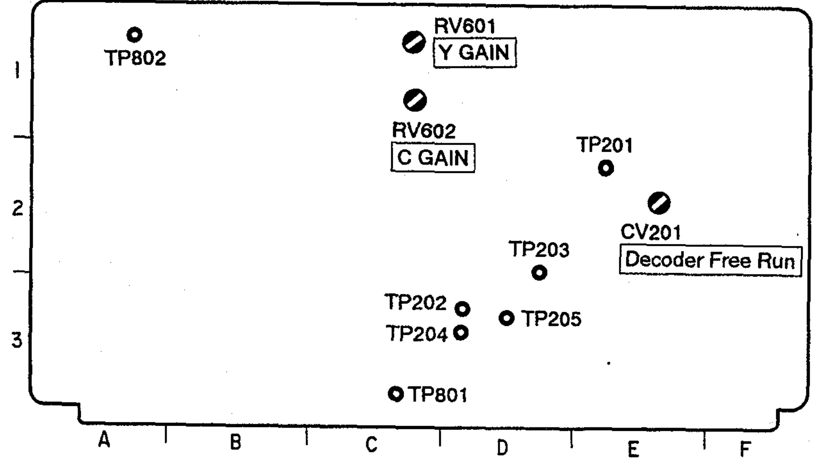
Place the unit on its right side down. Remove the Bottom Plate and Core Shild Plate. Open the HK-5 Board.

## RV's on the FR-43, and RP-73, RP-103 Board Location

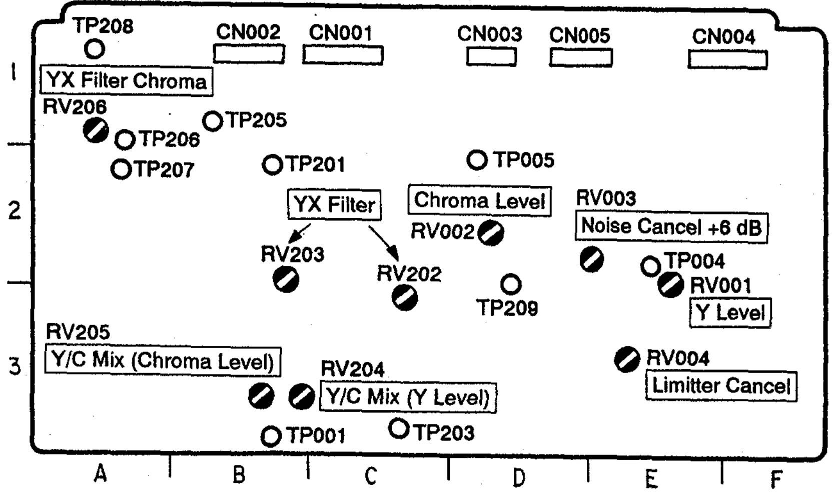

RV002
SP REC Current
RV001
SP REC Current (VIDEO)
RV002
LP REC Current (PCM)
A
B
C
D
E
1
2
CN001
RP-103
RP-73
CN002
RV003
LP PB Freq.
Res. CH-2
RV004
LP PB Freq.
Res. CH-1
CN004
CN003
RV004
SP PB Freq.
Res. CH-1
RV001
SP REC Current CH-2
RV002
SP REC Current CH-1
RV003
SP PB Freq.
Res. CH-2

Remove the Top Plate and Open the MB-19P Board.

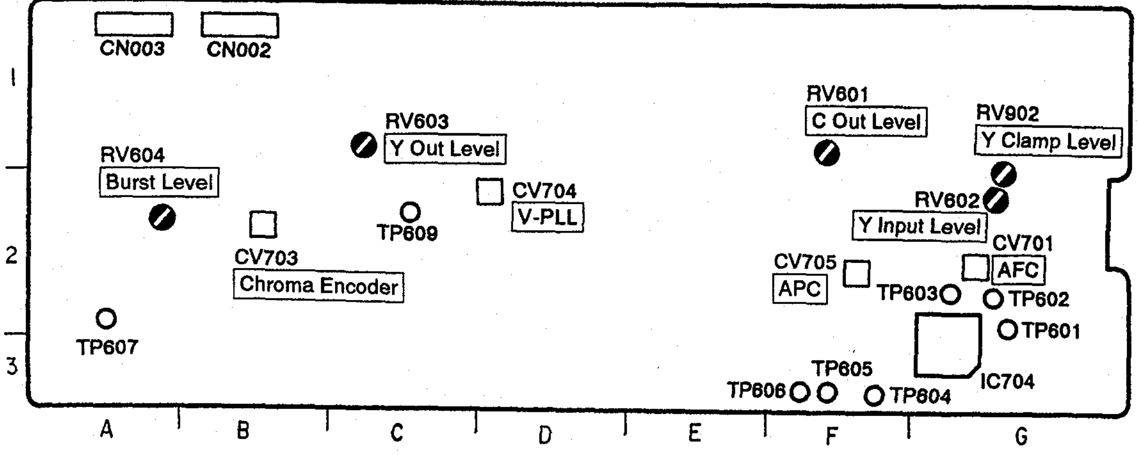
## YC-106 BOARD (COMPONENT SIDE)


TP802
RV601
Y GAIN
RV602
C GAIN
TP201
CV201
Decoder Free Run
TP203
TP202
TP204
TP205
TP801
1
2
3
A
B
C
D
E
F

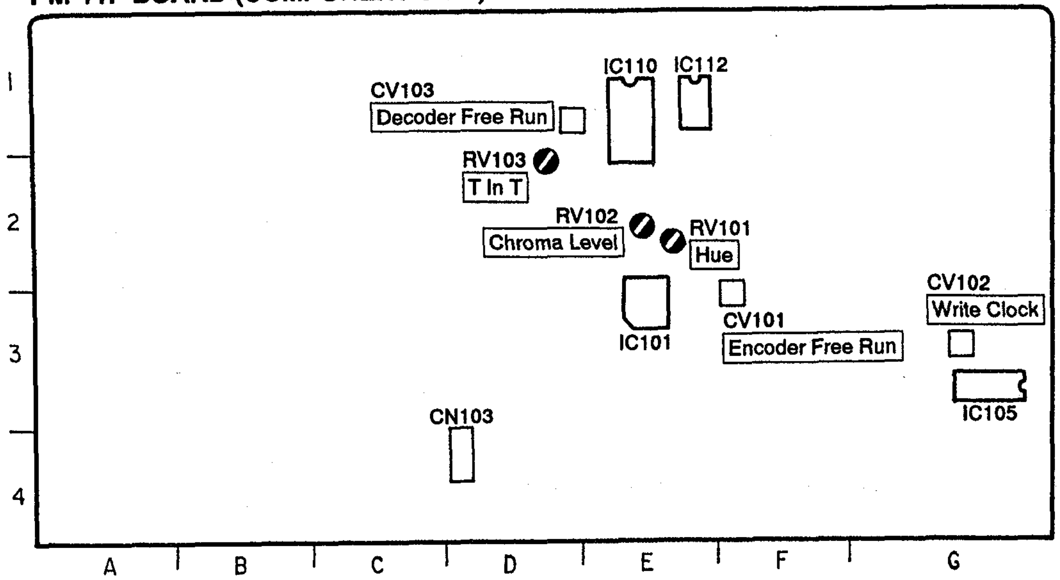
## YX-2P BOARD (COMPONENT SIDE)


TP208
YX Filter Chroma
CN002
CN001
CN003
CN005
CN004
RV206
TP206
TP205
TP207
TP201
TP005
YX Filter
Chroma Level
RV003
Noise Cancel +6 dB
RV002
RV203
RV202
TP209
TP004
RV001
Y Level
RV205
Y/C Mix (Chroma Level)
RV204
Y/C Mix (Y Level)
RV004
Limitter Cancel
TP001
TP203
1
2
3
A
B
C
D
E
F

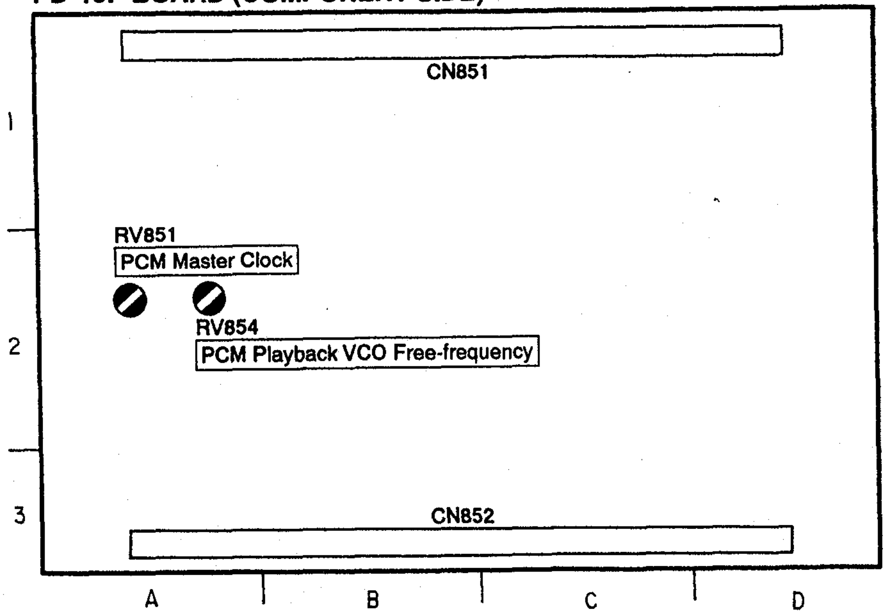
## MM-25 BOARD (COMPONENT SIDE)


CN003
CN002
RV601
C Out Level
RV902
Y Clamp Level
RV603
Y Out Level
RV604
Burst Level
CV704
V-PLL
RV602
Y Input Level
TP609
CV703
Chroma Encoder
CV705
APC
CV701
AFC
TP603
TP602
TP601
TP607
TP605
TP606
TP604
IC704
1
2
3
A
B
C
D
E
F
G

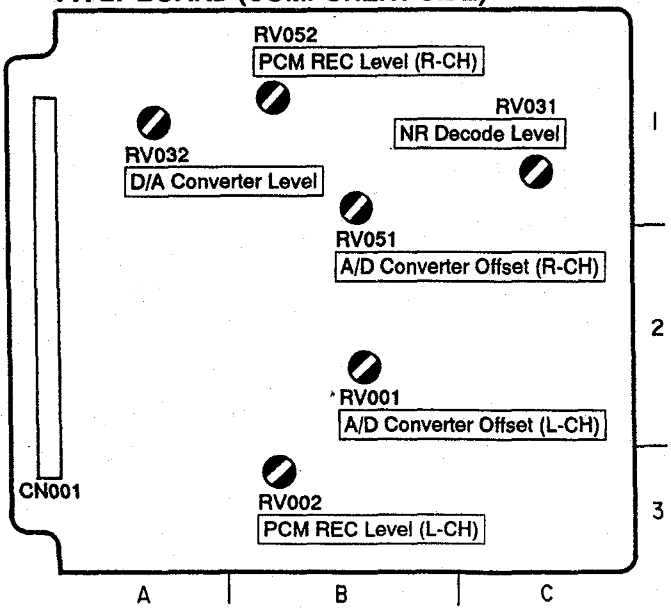
## PM-11P BOARD (COMPONENT SIDE)


IC110
IC112
CV103
Decoder Free Run
RV103
T In T
RV102
Chroma Level
RV101
Hue
CV102
Write Clock
IC101
CV101
Encoder Free Run
IC105
CN103
1
2
3
4
A
B
C
D
E
F
G

## PD-19P BOARD (COMPONENT SIDE)


CN851
RV851
PCM Master Clock
RV854
PCM Playback VCO Free-frequency
CN852
1
2
3
A
B
C
D

## PA-27 BOARD (COMPONENT SIDE)


RV052
PCM REC Level (R-CH)
RV031
NR Decode Level
RV032
D/A Converter Level
RV051
A/D Converter Offset (R-CH)
RV001
A/D Converter Offset (L-CH)
CN001
RV002
PCM REC Level (L-CH)
1
2
3
A
B
C